THE
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THE PRACTICAL SCIENTIFIC FARMERS OWN PAPER.

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SOME HINTS ON SPRING WORK.

MARCH, the "surliest month of all the year," has come again, and, though in many localities icy winter still continues to reign, the tocsin of preparation sounded on every side by nature begins to be heard.

Now is the time for the farmer to exercise all his vigilance and forethought, and to see that every moment of time is turned to account. See that a sufficient stock of fuel is laid in at the house for summer wants, and that the rails are drawn and laid where they are likely to be handy for repairing fences. Put the fences and gates into repair, as soon as the ground is thawed enough to fix the stakes.

Have you a stock of roots on hand? Every good farmer ought to have. Now is the time to feed them out to the animals on the farm, especially milch cows and breeding ewes, to enable them to give a full supply of milk for their young.

See that the yeaning ewes are separated from the rest of the flock, given a little extra food, and all tags and dirt removed from them. At lambing time, keep them comfortably housed, with plenty of good, clean straw to lie on, and do not forget to let them have access to clear, pure water at all times. They require constant care at this time, if it is desired to raise the lambs. The ewes may be let out into the yard every afternoon, but the lambs are better to remain in the house till they are at least a week old, strong and healthy. All changes and exposure, especially to the sun or rain, is injurious to them, as also is lying on the cold, damp earth. The lambs will soon learn to eat, if a little fine chopped hay or oat-meal is placed in a shallow box or trough in their house, while the ewes are out, and if it is desired to bring them forward early for the butcher, this extra feeding will help them greatly.

Feed the cows well, and do not let them fall off in their milk while waiting for the grass to come. Give the working animals enough of such food as will produce muscle,—not fat—and give them a moderate amount of daily exercise.

Keep the yard well littered with straw, and the cattle confined to it. There is nothing gained by letting them wander over the farm, making tracks in the soft ground wherever they go. Stock should never go to grass till the ground becomes settled firmly enough to bear them without showing foot-prints half an inch deep. Pile up the manure in the yard as fast as it is made, mixing into the heap all the scrapings of the house, fowl and sheep yards, hog pens, etc.

Pick over the potatoes, and select the largest and soundest for seed. If they are cut, roll them in plaster of Paris, and sprinkle plaster over them while lying in the cellar. It is said to act in some degree, as a preventive of the rot. We know of some farmers who sow a tablespoonful of plaster in each hill, or over each set, at the time of planting, and who ascribe the freedom of their potato crop from disease to the use of plaster. From the known tendency of salt to destroy fungoid life in its early stages, we think sowing it on the potato plant might be the means of mitigating the rot. We, however, only throw this out as a suggestion to those who may be willing to try the experiment.

Sow a bushel of plaster per acre on clover as soon as the ground is dry.

Clover and grass seeds may be sown this month, —on the snow if you like—though they will do as well, if not better, when sown just after the warm spring rains. Harrowing is generally unnecessary, but a light brush harrow is used sometimes with advantage. Where it is desired to ameliorate the soil, or obtain good pasturage, and plow it again in a year or two, we should sow nothing but pure clover, at the rate of 10 to 15 lbs. per acre. But where permanent mowing meadows are desired, it is well to sow a mixture of equal parts of clover and timothy, with the addition, perhaps, of some other grasses, of such sorts as can be grown in the locality with advantage; say

3 lbs. of Italian rye grass, or 2 lbs. of meadow fescue, or 1 lb. of red-top, or 2 lbs. of meadow fox-tail, or 3 lbs. of Kentucky blue grass, or 4 lbs. of orchard grass. Clover or grass seeds do better when sown on barley or spring wheat than on any other spring crop.

Roll the meadows and winter wheat as soon as the frost is out and the land tolerably dry. Old meadows will be the better for a good harrowing in the spring before rolling.

Do not be in too great a hurry to set the plow to work. Let the land become dry enough to turn over mellow. The surface then soon becomes warmed, and you can sow immediately.

Peas can be sown earlier than any other crop, and no farmer should be without a small field of them. The white varieties are most suitable for light soils, the grey kinds for strong clays. The best sorts of white pea we know of, are the Golden Drop, and Racehorse. Peas do well on an old sod plowed rather flat, but not shallow, and the land may be rolled, after harrowing in the seed, with advantage. If the land has been plowed the previous fall, they may be sown at once and lightly plowed or cultivated in. Three bushels per acre is the usual allowance for seed in Canada, where peas are very successfully and extensively grown. After the young plants are well forward, a top-dressing of a mixture of ashes and plaster will be of great benefit.

Spring wheat comes next, the soil for which ought to be in good heart, and free from weeds and moisture. The land for this crop is better to be plowed ridgy, so as to harrow down well over the seed; unless a seed drill is to be used. It is more liable to smut than winter wheat, and as a preventive of this disease, use a solution of three oz. of blue vitrol dissolved in a quart of hot water to each bushel. Let it cool, and then sprinkle the solution over the wheat on the barn floor, turning it over with a shovel at the same time, until every grain is dampened. It will be ready for sowing in two or three hours after. Among the best sorts are the Fife, Canada club, Tea and Italian. It is of great advantage to sow spring wheat as early as possible, provided the ground is dry and mellow; though it is thought by some, that if sown late it will more readily escape the ravages of the midge. Two bushels per acre is the usual allowance for seeding.

After this, barley may be sown, the land for which should be warm, rich and mellow, and if plowed the previous fall, may be sufficiently prepared by going over it twice with a two or three horse cultivator, and harrowing between. The common two-rowed variety of barley is perhaps the most reliable for general cultivation, though other sorts succeed best in particular localities. Barley does best on land that has grown corn or root crops the previous year, and it always requires a well drained or gravelly soil, to yield heavy crops. The usual amount of seed sown is too little. From 2 to 2½ bushels per acre is the least that should be allowed. A friend at our elbow says, "If the seed is steeped for twenty-four hours before sowing in a weak solution of crude nitre, which costs only about six or eight cents per lb., the plants will germinate rapidly and come up strong and of a dark color." After the plants are well out of the ground, the land may be rolled with advantage.

Oats usually come next after barley, but we think they might be sown earlier. They will bear being sown on an undried soil in early spring, better than barley or spring wheat. Early sown oats produce the most grain—late sown, the most straw. If oats are to be raised in low, rich, damp meadow lands, on which they often do well, they are better to be sown late—say just before corn-planting. The white varieties of oats are best for upland, dry soils, and the black kinds for moist soils. Here again the quantity of seed usually allowed is, in our opinion, far too small; 2½ to 3 bushels per acre is little enough.

The land for corn and roots can be put in a forward state as soon as the earlier spring crops are sown. Great care should be exercised in selecting seed corn, so as to get such kinds as mature early.

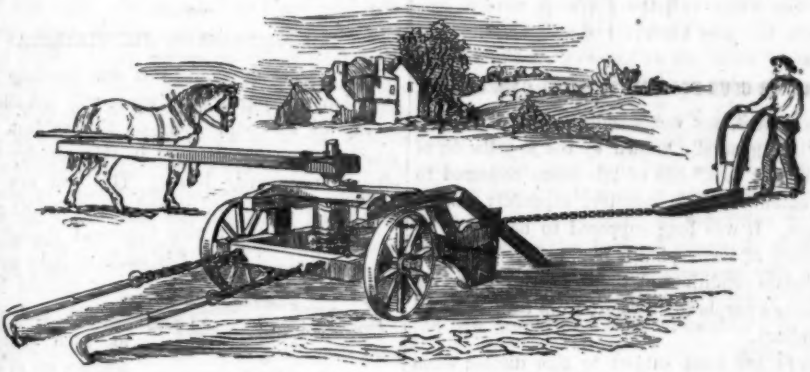
Surface Manuring.—Mr. Clark, in the *Country Gentleman*, maintains that nature has always applied manure on the surface, and that it is a great mistake to *oppose* nature by art, especially in connection with the processes of plant growth; that the highest aim of art should be to remove obstructions, and place the elements, after we have to a certain extent manipulated them, in the best known position to give nature the fullest and most effectual scope for action, and that the surface is the place where the separation of the organic and inorganic elements occurs, and that the medium—water—which carries the one downward and supplies vapor to facilitate the ascent of the other, is applied at the surface.

On the opposite side, a writer in the *American Agriculturist* says "Nature is not a cultivator. It is true that lands are fertilized by natural processes, but he who waits for the returns would need the life of a Methuselah, thrice lengthened. Man wants quick returns, and to secure them, he must often

do violence to nature. Nature's liberality is profuse, but undirected; she is to work for man, and it is for his science to discover her capabilities, and turn them to account, and not to blindly follow her lead. Though an indispensable servant, and often a reliable adviser, she is not the infallible teacher that many suppose."

MOLE DRAINS.

These are the simplest of all covered drains, and are usually formed by means of a machine called a mole-plow, of which there are various patterns in use at the West. Our engraving represents such a machine as is commonly used for this purpose in Great Britain.



AN ENGLISH MOLE DRAINING MACHINE.

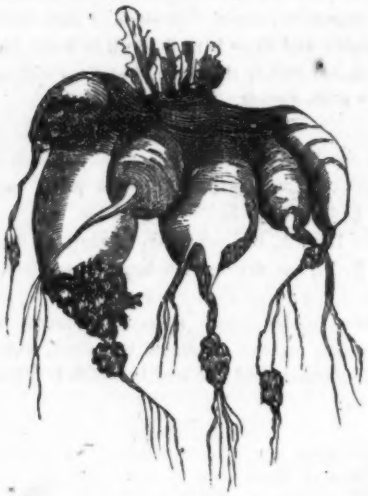
This machine consists of a strong wooden beam and stilts, to which is attached a broad coulter, which can be raised or lowered by means of a slot in the beam. To this coulter is attached, horizontally, a short, cylindrical, pointed bar of iron. The beam is sheathed on the under side with iron, and moves along on the surface of the ground; thus keeping the bar at the end of the coulter at a uniform depth. The machine is dragged through the soil by means of a chain and capstan, worked by horses, as shown in the foreground of the engraving, and produces in its course a hollow channel similar to a mole run—from which it derives its name.

These drains can only be constructed with benefit in strong clay, or soils of sufficient tenacity to resist being washed away by the action of the water, and thus filling up the drains in a short time; and then the improvement is of a very temporary kind in comparisoh with that effected by proper tile or stone drains. Still, on the stiff subsoils of Ohio and the prairie lands of the West, they have been found of great benefit and to last long enough to make the operation of mole-draining profitable, and there is no doubt it is both cheaper and more efficient than open drains, as well as of vastly more benefit.

The mole-plows used in Illinois are many of them good machines, but being generally patent-right articles, are very expensive—the price varying from $100 to $175 for good machines.

The Hon. A. B. Dickinson, of Hornby, Steuben Co., N. Y., has drained his large farm effectually without the use of tiles, by means of a very simple machine of his own. Horace Greeley, in an interesting account of Major D.'s farm, describes this implement and the way in which it is used, as follows:

"I believe there is not a rod of tile laid on this farm, and not a dozen rods of covered stone drain. But the major has a home-made, or, at least, home-devised, 'bull plow,' consisting of a sharp-pointed iron wedge, or roller, surmounted by a broad, sharp shank nearly four feet high, with a still sharper cutter in front, and with a beam and handles above all. With five yoke of oxen attached, this plow is put down through the soil and subsoil to an average depth of three feet—in the course which the superfluous water is expected and desired to take—and the field thus plowed through and through, at intervals of two rods, down to three feet, as the ground is more or less springy and saturated with water. The cut made by the shank closes after the plow and is soon obliterated, while that made by the roller, or wedge, at the bottom, becomes the channel of a stream of water whenever there is any excess of moisture above its level, which stream tends to clear itself and rather enlarge its channel. From ten to twenty acres a day are thus drained, and Major D. has such drains of fifteen to twenty years standing, which still do good service. In rocky soils, this mode of draining is impracticable; in sandy soils it would not endure; but here it does very well, and, even though it should hold good in the average but ten years, it would many times repay its cost."



ANBURY, OR CLUB-FOOT, IN TURNIPS, CABBAGE, &c.

This disease, not uncommon in Great Britain, where it is generally known by the appellation of "fingers and toes," has of late years appeared to some extent in this country, especially among cabbages. It was long supposed to be caused by the agency of insects, but is now believed to result from certain conditions of the soil. Our engraving represents a purple-top Swede turnip badly affected with anbury.

Turnips are most subject to this disease when grown on a soft, rich, black soil, and it rarely occurs in those grown on soils having a fair proportion of clay marl, or lime, in their composition. On well drained soils, it is said never to occur. When turnips are grown for successive years upon the same ground, they become liable to be affected with this disease. The disease makes its appearance in the early stages of the growth of the plant, and if the bulbs remain healthy till they are the size of a walnut, they are considered past danger from it. When turnips are affected with it, the roots become fibrous, the circulation is stopped, the anbury decays and attracts to it numerous insects, which deposit their eggs therein, and the turnip soon becomes filled with maggots; which has led many to suppose the disease was caused by insects.

Cabbage plants are often affected with anbury while in the seed bed; it then appearing in the form of small excrescences on the stem, just above the roots. Such plants should invariably be rejected at the time of transplanting, and then the cabbages may be expected to be free from club-foot.

No specific remedy has yet been discovered for this disease, nor is one likely to be, as it appears to become chronic when it once attacks the plants. Prevention in this case, as in most others, is better than cure. The use of lime, bone dust, and all manures having a proportion of lime in them, is said to prevent in a great degree the occurrence of anbury among turnips. The most effectual way of keeping it out of cabbages is to spread charcoal dust half an inch thick, and lightly mix it with the surface soil on those spots where cabbage plants are raised from seed, just before sowing: Soot would probably answer the same purpose. After the cabbages are transplanted, they should be well watered at the roots for a few days, and if any of them show indications of being affected with anbury, they had better be pulled up at once, as they will never come to anything.

DRAUGHT-BARS OR WHIFFLETREES.

The subject of draught is one meriting some attention, but our limited space will not allow us to say all we could desire on this subject. The whiffletree commonly used in this country is too often unnecessarily heavy. The best are those made of well-seasoned second-growth white ash.

We give cuts of two improved draught-bars used in England. Fig. 1 is made of light wrought iron, trussed in the middle, and welded at each extremity, leaving an eye for a ring to attach the trace hooks to, the iron bolt in the centre having a hole to attach it to the centre bar. Fig. 2 is made of wood, and is trussed on a wrought iron rod, to which the draught hook is attached by which to fasten it to the doubletree, or a single horse plow, etc.

Fig. 1.

Fig. 2.

The whiffletrees generally used in this country are made too short, and the traces consequently rub against the horses' sides or hips. They should be long enough to leave the traces clear of the animal. Another fault is, the animals, when worked abreast, are placed too close together. No draught power is lost by placing them so far apart that they can not come in contact with each other near the shoulder.

Large Pig.—Mr. R. M. Wool, of Tompkins Co., N. Y., sends us an account of a pig of the Yorkshire breed, recently slaughtered by a neighbor of his. It was just nine months old, and weighed alive 509 lbs., and when dressed, 449 lbs.

SPIRIT OF THE AGRICULTURAL PRESS.

WHY BARLEY SO OFTEN FAILS IN NEW YORK.—A correspondent of the *Country Gentleman*, writing from Madison county, N. Y., after adverting to the benefits derived from the teachings of JOHN JOHNSTON, on the subject of improving soils by underdraining, etc., says: "The amount of ignorance as to true farming is extraordinary. The early settlers found the soil fertile, and they practiced a system of constant cropping, which their children have followed after them till they found that the crops failed, and then they began to look around for the cause. Barley has ceased to be grown in this county, because the land wont grow it; but many farmers do not know the cause (or wont). They ascribe its failure to unpropitious seasons, insects, defects in seed, etc. One of my neighbors sowed one field to oats seventeen years in succession! and when he wanted to sell his farm, he cited this fact to prove the richness of the soil.

SPARRED FLOORS FOR CATTLE STALLS.—A Canadian correspondent of the *Country Gentleman* strongly recommends the adoption of Mr. MECHI's plan of having the floors of cattle pens constructed of spars placed 1¼ inches apart, so as to allow of the droppings passing through into a cellar below. He has tried this method both with cattle stalls and hog pens, and says he finds it just the "thing." He found the droppings did not freeze, that the manure was better and more concentrated, that the animals kept very clean and dry, and appeared to be equally as warm as if bedded in straw. For the pig pen the slats are placed closer together.

HUNGARIAN GRASS INJURIOUS TO HORSES.—An Illinois correspondent of the *American Agriculturist* states that last winter several horses became seriously afflicted with stiffness of the joints. They had been kept in good condition on Hungarian grass, and from the fact of other horses that had been fed on hay, being exempt from the disease, the general belief is that eating Hungarian grass was the cause of it—not perhaps the hay itself, but the seed. He thinks it ought to be cut for hay while in full bloom.

STEEPING BARLEY BEFORE SOWING.—A writer in the *Homestead* recommends that seed barley should be steeped before sowing in a solution of copperas or blue vitriol, the same as is often done for wheat, and then rolled in plaster enough to dry it. He says it has the effect of giving it a rapid start, and make it come up strong and dark colored. He thinks the benefit equal to ten extra loads of manure per acre.

HOW MUCH HAY WILL KEEP A HORSE.—A correspondent of the *Wisconsin Farmer* states that he has found by twenty years experience that 15 lbs. of hay and 12 quarts of oat-meal per day will keep a good sized horse of 1150 lbs. weight, in fine condition for farm or road work, and that by using a cutting box, one third of the hay can be saved, and replaced by an equal weight of good straw or cornstalks. The usual estimate among farmers is that a horse will generally consume 2000 lbs. per quarter, of 13 weeks, or 22 lbs. per day. This shows how much can be saved by a judicious method of feeding, as a horse will eat considerably more than is necessary for his well being.

WHY YOUNG MEN LEAVE THE FARM.—ACER, in the *Country Gentleman* justly says: "The reason why so many young men at school acquire an aversion to labor, is, because the *practical application* of knowledge is not taught in the schools. They learn only abstractions." He instances a neighbor's son who had learned at the Academy all about surveying—only he did not know *practically* how to measure a ten acre lot, but could do it on paper.

UNHEALTHINESS OF ARTIFICIAL MANURES.—A correspondent of the *Mark Lane Express* thinks the prevalence of disease among turnips last season, in England, is due to the overdoses of guano and other artificial manures, given to the soil in order to stimulate it to increased production. He also cites the expressed opinion of several practical farmers of the injurious effects of such roots upon sheep and cattle when fed on them.

HOW TO PREVENT STOCK FROM BEING UNRULY.—A correspondent of the *Ohio Farmer* gives it as his opinion, that the common practice of making farm animals jump over the lower rails of fences and bars tends to make them unruly, and says that if the top bar is left up, so that they are compelled to go under it, they will never learn to jump.

LARGE COW.—The *Boston Transcript* says that Mr. CHENERY, of Belmont, Mass., has imported some Dutch cows. Recently several of them died from penumonia. One of these was the largest animal in the United States, and weighed 3,260 lbs. The skeleton of this animal has been presented to Prof. AGASSIZ for his new museum.

ONE APPLICATION OF GUANO SUFFICIENT.—Gen. CADWALLADER, of Md., who uses some $4,000 worth of guano per annum, recommends a single application of it to worn out lands naturally fertile, that here its use should stop; it has served its purpose, and no second dressing should ever be applied.

BREEDING AND REARING FARM STOCK.

EDS. GENESEE FARMER:—The art of rearing and breeding farm-stock is of vast importance to the farmers of the State of New York, as every man will admit. Yet, so far as I have been able to learn from the writings of farmers on the subject, or the manner of their keeping, as having fallen under my own observation and of those with whom I am acquainted, there does not seem to be that uniformity in the matter that a new beginner might expect. With your permission, I will give you some of my experiences, and also some of my observations from the practices of others, in the feeding of farm stock; providing, always, that there shall be enough of instruction in what I shall say to be of some service to the novice in the art, (if not, you will please consign this to the grate.) Those who are veterans in the business, I shall not attempt to instruct; but may, perhaps, call them out with something that will instruct us all. As it is now the reign of winter, I shall talk of winter management in this; giving some of my experience in winter feeding, different varieties of food, and manner of giving it, with the result.

Occasionally (as the present time is acknowledged to be), there comes a year of scarcity of hay, in which many are interested in knowing what will keep their stock through the winter in good condition, the most economically; or with the least expense consistent with the welfare of the stock for the time being, and also for the future. That the wintering of stock on the least that will keep them alive, from the time they come to the barn till they are again turned to pasture, as many do, is poor economy, I most firmly believe, and hope to convince all who will take time to read this paper. I suppose my friend JOHN JOHNSTON would say that stock should grow as fat in winter as in summer, and I shall not dispute him on that point, as I more than half believe the same thing myself. "How can it be done?" it may be asked. In most of the writings that I have read, it is said that corn-meal is not good food for milch cows; that it has a tendency *to dry them up*, is too heating, and causes them to lay on fat instead of giving milk. Such persons prefer bran, shorts and buckwheat bran, to meal, etc. It is said by some writers, that farmers must not feed grain, as that is too expensive, etc.; also, that, at the present time, all straw, stalks, and even buckwheat straw, must be fed to stock—and that, too, as I suppose, without the addition of meal, etc.; all of which I consider errors in theory and practice. We will now see how my experience agrees with the foregoing. It is now seven years since I learned that corn-meal (without the cob), if not the best, was among the best articles of food for cows giving milk. I then sold my milk daily to men in the milk business. I fed from two to eight quarts per day, and the higher the feed the more milk. I then learned that it made no perceptible difference whether given dry or wet, cooked or uncooked, in the yield of milk or condition of the cows. Therefore, I have adopted the plan of cutting all cornstalks, straw and hay (if not of first quality), and giving each cow or fattening animal such an allowance as they will readily eat up clean, with a feed of meal, consisting of corn and oats, or buckwheat, screenings of wheat, etc., or all together; the basis being corn. The cut feed is put into the manger dry, and the meal sprinkled over it while the animals are in the yard. Experience having taught me that it is unnecessary to wet the mixture, I have never tried the steaming process, but think favorably of it. I think I shall try it, and certainly shall not condemn it until I do so, or have some proof that it is useless labor.

In the foregoing, I have given my experience and the result, in regard to milch cows. I will now give some experiments in regard to growing stock. In the fall of 1858, I had seven animals, a little over two years old, in fine running order for animals at that age. They were fed in the manner related in the case of the cows, with an average of three quarts of meal each per day, for from four to five months; gaining about three hundred lbs. each, from December 1st, when the feeding commenced, till sold. One heifer, sold at two years and nine months, gained two hundred and ninety-six lbs. in a little over four months. As I have scales, there was no guess-work in the matter. They were sold for $5 per cwt., weighed on the farm. Now, experience taught me in this case, that they paid well for their keeping the last winter of their lives.

Such being the facts in my farming operations, why cast about for straw, or something cheaper, on which to winter stock, for the sake of selling more grain, when it pays better to feed it to stock on the farm, than to sell it in the market, and have much of it made into intoxicating drinks, to the detriment of our fellow men.

Now, let us take a different view of the case last related. Suppose a farmer has a half dozen head of steers or heifers, at two years old past, worth $20 per head—as was the case in this vicinity in the fall of 1858 and in 1859. They are wintered cheaply,—that is, on straw, stalks, and, perhaps, poor hay, or even good hay—without any regard to condition in the spring, and, instead of gaining three hundred lbs. each, they loose nearly, or, in some cases, quite that amount of flesh. That will make them from four hundred to six hundred lbs. different in weight; when probably the poor ones have had as much hay, straw and stalks as the fat ones, but no meal. They will then run until fall, and have been sold for from $50 to $65 per pair in this vicinity, averaging about $55. Now, with the meal mentioned in the experiment related, and with a good stable and proper care, the sales were from $51.50 to $66.50 per head, and sold in April; thus saving the summer's keeping, and doubling the price.

Brother farmers, let us consult together and find out the best way. Then let the fortunate man, when he has found it, by long trial and actual experiment, give the result to new beginners and others less fortunate. By doing so, you will be conferring a lasting benefit on the world.

I am aware, Messrs. EDITORS, that the subject is not exhausted; but if some one may be stirred up to make some experiments for the benefit of the community, by reading the foregoing, or communicate experiments already made, that shall enlighten the farmer on the subject, which is of such great importance to the country, then the writer of this will have accomplished his desires.

Rome, N. Y. JONATHAN TALCOTT.

WE shall be glad to hear more from our esteemed correspondent on this subject. EDS.

THE RATIONALE OF CHEWING THE CUD IN RUMINATING ANIMALS.

Eds. Genesee Farmer:—On page 68 of the *Genesee Farmer*, for February, 1860, your correspondent, E. B., asks, "What causes cattle to lose the cud, and what is the best remedy?" Similar questions are frequently asked, and much disease of our neat stock is attributed to this "*loss of cud*."

Literally, there can be no such thing as "*loss of cud*." Ruminating animals are never furnished with an appendage so ridiculous as "*cud*," to be used as "*gum*" in the mouth of a schoolboy, which, if lost, must be supplied with an artificial "cud;" as if the operations of nature must be suspended until this prepared artificial *panacea* is supplied, to take the place of a natural "*cud, lost.*"

By a slight investigatfon of the anatomy and habits of ruminating animals, this very common delusion would be dispelled, and the slight understanding of the "cud," the causes of its "loss," and the means necessary to be used to restore it, would be more clearly understood.

By ruminants, or ruminating animals, we mean those having a complex stomach, with four cavities so disposed as to allow of ruminating, or the act of at once laying in a large store of food, slightly chewed, and afterward to return it to the mouth, and there more thoroughly masticate it, and fit it for digestion. Digestion is always preceded by this action in this order of Mammals, and they are exclusively confined to a vegetable diet. Now, if debility, loss of appetite, disease of the stomach and digestive organs, or sickness from any other cause ensue, this order of nature may, for the time, be suspended, and the animal have no need to perform the act of rumination. The ordinary operations of a healthy animal are not called into requisition. Hence we hear of "loss of cud." The only "remedy" for this "loss" lies in restoring the animal to health, and if we know what is the disease, we can the more certainly apply the "remedy.' But all the "made cuds" that ever entered into the *materia medica* of quackdom can never compensate for the folly and ignorance of applying *one*.

The stomach of ruminating animals is specially organized for the performance of its peculiar functions. It consists of four distinct cavities, all communicating with a muscular canal, at the termination of the *œsophagus*. Coarsely masticated food passes from the beginning of the muscular canal into the first cavity, called the *rumen*, or paunch. Water is received into the second cavity, called the *reticulum*, and almost exclusively occupies the honey-comb cells of that cavity, and is gradually mixed with the coarsely divided food which is undergoing mastication in the *rumen*. When this is sufficiently advanced, a portion of the mass is raised into the muscular canal, is there moulded into a ball, and by a spasmodic action of the muscles of the gullet, is forced into the mouth, where it is perfectly masticated at leisure, mixed with saliva, and again swallowed. It now passes directly into the third recess, called the *psalterium*. Here the superfluous fluid is absorbed, and the thoroughly subdivided mass passes gradually into the fourth recess, called the *abomasus*, where it is completely digested, and from which it passes off into the lesser intestines.

Ruminating is a most interesting process of nature, and it is a most pleasing study to observe and note its manifold operations, and to witness the supreme satisfaction of a well-fed animal "*ruminating*," or elaborating by this wonderful provision of Providence,—the mastication of food by deglutition, ejection, and final swallowing—otherwise, "chewing the cud." When we become more thoroughly familiar with the beautiful economy of animated nature, and its most wonderful organization, we shall no more hear of the "loss of cud," but will attribute effects to their proper causes, and call things by their right names. J. V. H. C.

Manlius, Onondaga Co., N. Y., Feb., 1860.

NOTES ON THE DECEMBER AND JANUARY NUMBERS OF THE GENESEE FARMER.

Lucerne.—Messrs. Editors, you say, "This plant was extensively cultivated by the Romans." And so it is now in Peru, and some other South American States, both for pasturage and soiling purposes. It is there grown under the name of "Alfalfa," which the late Capt. Herndon, in his "Valley of the Amazon," says, "is a very green and pretty Lucerne, universally used in this country (Peru) for pasturage." And it is also being extensively grown in California for pasturage. In the Fourth Report of the California State Agricultural Society, 1857, it is said by the viewing committee on farms, etc., "that on the bank of the Aguba River, is the Quintery farm of Messrs. Pinney and Cameron, containing four hundred acres, three hundred of which is laid down to Alfalfa, and is divided by good fences into three fields, in which they herd or feed stock for hire. This is their business; and so good is it, that, while they charge just twice as much per month as their neighbors, who feed with ordinary grasses, they can not take half as many head as are offered to them. Their terms are three dollars per month per head, and they limit the number to two hundred. The field into which the cattle had just been turned (they feed down the fields alternately), had been fed down twice this season, and now the clover is nearly three feet high, and in bloom. (This was about the middle of June.) While all other grasses and clovers, under similar circumstances, are perfectly dry and yellow, the Alfalfa exhibits the most fresh and luxurious green. The roots of this clover run down through a close soil, till they reach water, though the same be far below the surface. Last year's freshet washed away the banks of the river, and exposed the roots about twenty feet below the surface." The President of the Society, in his opening address at the State Fair in 1857, said: "It is certain that, on large districts of our country, when other grass crops dry up entirely before the month of June, Alfalfa will, when once well rooted, continue green the year round; yielding three hay crops annually, and affording a full pasture, equal in richness to a grain field. It makes good hay and good pasture, in spring, summer, fall and winter. This crop, however, is said to have this peculiarity, which should be well understood, that, when once well rooted, it can not be exterminated; and, of course, no other crop can be cultivated on the same land." Well, who would wish to exterminate such a God-send? Its seed, unlike the Hungarian grass, does not require annual sowing; nor does the

Alfalfa, like the Canada thistle, white weed, and other similar pests of the farm, spread itself "all over creation." Is there any reason why this clover can not be successfully grown in the Southern States, and on the deep prairie, and other rich soils of the West? It seems to me, this plant is worthy of extensive experiment in the sections of country above named.

FEEDING FARM STOCK is the leader in the December number of the *Genesee Farmer*, and it contains a fund of scientific and practical information for us *farmers*; but there are a few statements in it I beg leave to comment upon, — such as the statement, that "the nitrogenous substances of vegetables are precisely the same in composition as the muscle or flesh of animals; and it is *supposed* that the nitrogenous substances of vegetables are *converted into flesh without* decomposition."

Will you please inform us by what process the gluten of wheat, corn, barley, oats, and the legumin of peas and beans, are changed into beef-steak, without first undergoing decomposition? or, how vegetable albumen, found in cabbage, turnips, roots, and other forage plants, becomes the white of an egg, or the casein of milk, without first having been subjected to the processes of decomposition, recomposition, and a complete rearrangement of the molecular particles of the constituents of the vegetable albumen? Starch, gum, and sugar can all be changed into fat, for these substances are all chemically alike; that is, they all have nearly the same proportions of carbon, oxygen and hydrogen, (and no nitrogen). By slight differences in the combination of these elements, they form the different substances, viz: starch, gum, sugar and fat. Starch, in the laboratory of a chemist, can readily be changed into gum, and then sugar, but to convert the sugar into fat, requires the more efficient agency of animal chemistry. And is not the starch, sugar and gum decomposed in the laboratory of the animal before they become tallow, lard, or oil? These questions are simply asked for the purpose of eliciting correct information, such as we tillers of the soil can understand.*

Bran may, for aught I know, be more nutritious than the finest flour, but would not bread made from unbolted wheaten meal, be more healthy and nutritive than that made from the bran alone, or from the finest flour? But, as Graham bread is not a general favorite, we predict that, for some time to come, bipeds will eat the fine flour, and quadrupeds the bran.

Pigs will thrive well on skimmed milk, but they will fatten faster if fed on unskimmed. The transition from cream to hog's lard is an easy one, when liberally fed to a healthy pig, especially if it is of the Chinese or Suffolk breed.

A judicious rotation of crops, in the long run, will prove more profitable than the haphazard course pursued by too many farmers.

The skilful chemist can accurately determine the actual and relative proportions of carbonaceous and nitrogenous substances in corn, wheat, peas, beans, etc. But the analyses of the chemist, and the conclusions drawn from them, are not always fully sustained when tested by actual experiment. There are so many unseen and unknown contingencies connected with our experiments in vegetable and animal nutrition, that we can not always arrive at the exact truth of the matter sought. There is a wonderful difference in different animals,—man included—to take on fat and muscle. Everything DANIEL LAMBERT ate, seemed to all run to fat, till he became a miniature mountain of human fat. The assimilating vessels of others are so constituted that they draw largely from the nitrogenous properties of their food, and take on muscle, or lean meat, to the almost entire exclusion of fat. Others, again, will neither take on "fat or lean." You might as well attempt to fatten a pair of steelyards as one of them. CALVIN EDSON, the "Vermont living skeleton," who was exhibited about the country a few years ago, at so much "a sight," was of this last named class.

If a bushel of peas contains three times as much nitrogen as the same quantity of corn, and, if all the nitrogen of the peas could be assimilated, then would it not produce three times as much muscle and other nitrogenous animal substances as the corn? But, you say the assimilation of nitrogen it in proportion to the available carbonaceous substances. This may all be correct, and if so, then would it not be profitable to feed potatoe, or other cheap starch, with the pea-meal? Starch is soluble in boiling water, and then mixed with the pea-meal in the right proportions, a much larger amount of the nitrogen would be assimilated. The above, however, is a mere suggestion.

Warner, N. H., L. BARTLETT.

* See Johnston's Agricultural Chemistry, p. 590. EDS.

BEST FOOD FOR LAYING FOWLS.

"WHAT kind of food will cause hens to lay the most eggs?" is a question much easier asked than answered. It will, we fear, never be decided. Some say feed oats; others barley, buckwheat, etc.; but we say that it is a judicious rotation of feeding that produces the best results. No one kind of food will make hens lay well, unless they are provided with the requisite concomitants, such as fresh meat, when worms and insects are not to be had; charcoal and calcareous matter, such as broken bones, oyster shells, effete lime or old lime mortar, to assist nature in forming the shell of the egg, all of which are found in a wide range, without our especial attention, or at least enough to cause a hen to lay her maximum of eggs. Broom-corn seed is a good grain to feed to fowls, but they will not eat it in its whole state with that avidity with which they will eat other grains; but by crushing or grinding, it is highly relished by fowls, but should be fed sparingly.

No animals are easier kept than fowls. No kind of food comes amiss to them. They obtain their living promiscuously, and pick up everything that can be made use of as food in the farm-yard; even the worms, grubs, and bugs give them the most nutritious food; and it has been satisfactorily proved that there is no substitute for potatoes, if they are boiled and mashed, and mixed with a little corn-meal, shorts, or even bran, as a promoter of laying. The more varied the food the better. As to green food, they are partial to lettuce, cabbage, endive, spinach, chickweed, grass-seeds, etc.; and if insectivorous food is wanted, there is nothing, perhaps, so easily obtained at almost any season than this, by the following method: Procure a deep crock, into which put some wheat bran, and cover it with

a glass cap, so as to admit light but exclude rain; in a few days it will be a moving mass of living insects or grubs, which can be thrown out to the poultry. There is nothing they will devour so greedily; but this should be sparingly given, as the fowls are so fond of it that, if given abundantly, it will prevent them from taking their usual food, and, squash bugs especially, will sometimes give them disease.

Regularity, where fed by the hand, should always be observed in the hours of feeding, and also in the quantity of food given. Not surfeit them one day, and starve them the next; but give the fowls their food as regularly as you take your own meals.

"Which breeds of fowls are considered the best for producing eggs?" This, also, is one of those questions more easily asked than answered. "What breeds of fowls would you recommend keeping for economy and profit?" is a question frequently put to us. To which we would answer, those which are considered the most useful sorts:

1. The Dorking fowl, an ancient breed, which COLUMELLA, who lived in the middle of the first century, accurately describes, as we have it now, as being the best fowl of his time; speckled in color, of great beauty of plumage, and possessing the fifth toe; to which we might add, somewhat delicate in constitution, and seems to thrive best on warm soils; eggs large and well flavored, but not abundant; fair mothers; chickens, though feathering early, not so easy to rear as some other breeds; splendid table fowl, meat white, tender, juicy, and of high flavor; large and plump in body, wants liberal keep and warm housing.

2. Game fowls. Also an ancient breed. We have good authority that this breed existed in England with the Romans. Elegant and compact in appearance, hardy in constitution, excellent caterers for themselves, good layers of delicious eggs, excellent mothers and rearers of chickens, and unsurpassed in flavor when cooked. Indeed, we would recommend a well-bred Game cock in all cases as the best cross to infuse stamina, hardihood and fecundity into a decaying stock of fowls, where *pure blood* is no object.

3. Dominique. One of the best fowls, taken "all-in-all," we have; unanimously pronounced as being hardy, good layers, careful nurses, and affording excellent quality of eggs and flesh.

4. Black Spanish. Noble birds, and abundant layers of very large eggs. The Spanish hen will lay more pounds of eggs than any other breed we know; but they are poor incubators, worse mothers; chickens rather slow to feather, and delicate.

5. Golden Spangled Hamburg. Elegant in plumage, compact and symmetrical in form, great layers of delicious eggs; seldom want to sit, poor mothers, and chickens tender; do not bear confinement, great foragers, and very showy as lawn fowls. The characteristics of the Silver Spangled Hamburgs are similar to the Golden, except in color.

6. Bolton Grey. A nice, plump, and not very hardy bird; elegant in form, beautiful in plumage, first-rate layers, rare incubators, impatient of restraint, excellent caterers for themselves, requiring warm apartments.

7. Poland. Excellent layers of good-sized eggs, rare incubators, poor mothers, chickens rather delicate, beautiful in form and plumage; require warm housing; good for the table.

8. Brahmas. Hardy, abundant and early layers of excellent eggs, rather small in comparison to the size of the bird; good mothers, chickens strong and grow rapidly, and with good feeding fit for the table at four months old; very quiet, and bear confinement in a small space better than almost any other breed. C. N. BEMENT.

Springside, Dec., 1859.

MAXIMS.

[From the Journal of a Canadian Farmer.]

"Never put off till to-morrow what can as well be done to-day." Our short working seasons and variable climate render this absolutely necessary.

"Never occupy more land than you can cultivate thoroughly." One acre well tilled is more profitable than two acres slovenly managed.

"Never contract debts, with the expectation of paying for them with crops not yet grown." There are so many liabilities to failure, that we seldom realize what we anticipate.

"Never keep more stock than you can winter well; nor less than will consume all the fodder you can raise." To sell hay or straw is unwise and unprofitable.

"Never expose stock of any kind to the inclemency of a Canadian winter." They require, at least one-third more food, and are poorer in the spring; besides, it is cruel and shiftless.

"Never neglect getting up a year's supply of wood in the leisure of winter." It is unprofitable to cut wood in summer, when wages are double, and every hour is required on the farm.

"Never spend your labor and waste your seed, in trying to raise grain in 'dropsical' land." It is better to spend the price of the seed, and the labor of plowing and harrowing, in drains at the first; then your capital is properly invested, and you will be likely to get a handsome dividend.

"Never plant an orchard with the expectation of its thriving, unless you first prepare the land well, then plant well, stake well, fence well, and cultivate well—hoed crops are the best." "What is worth doing at all, is worth doing well," must always be borne in mind in the raising of fruit trees to anything like perfection.

"Never let your tools and implements be exposed to the decaying influences of the sun, rain, and frost, except when in use." "A place for everything, and everything in its place," will pay at least twenty-five per cent. per annum, in this respect.

"Never depend upon a neighbor's grindstone to sharpen your tools on." It is a waste of time; and time is a farmer's capital, when rightly employed. This might also apply to borrowing in general.

"Never trust boys to plow, unless you are frequently in the field." A man's wages may soon be lost in careless plowing.

"Never trust children to milk the cows, unless some competent person follows after to secure the most valuable part of the milk." A cow is soon spoiled by bad milking.

"Never use the contemptible saying, 'time enough yet';" but always endeavor to do everything in season. "Take time by the forelock." *Lead* the work, rather than be *driven* by it.

"Never let the farm absorb all your attention, to the total exclusion of a garden." There is more profit and real pleasure to be derived from a garden, than from any other acre of the farm. A good farmer should also be a good gardener.

"Never think of doing without an agricultural paper, even if you take three or four political papers." They do not meet the wants of an agriculturist.

"Never believe all you read, even in an agricul- paper;" but "prove all things," and practice that which suits your position and circumstances best.

Woodstock, Canada West. R. W. S.

ENGLISH BACON.

Eds. Genesee Farmer:—Your method of curing bacon, English way, is the same that I have always seen and been accustomed to at home, pigs either scalded or singed, with this exception, viz.: *rubbing the skin*, of which you take no notice in your description of the process.

Now, I would beg to remind you that it is as necessary to rub the skin as the fleshy part of the flitch or ham, and let me tell how to rub it. Off with your coat, double up your shirt sleeves, have plenty of good Syracuse salt* (the best I know of), and go to work rubbing both sides of the flitch or ham until you sweat again. Lay all your weight on as you rub the salt in, and in this matter do not pinch, or, as we say, "Never lose a hog for a pennyworth of tar." Once done well, it is done forever. The rubbing in of the salt is the cure.

All the other descriptive part of your method is perfect, save another item, viz.: *salt petre*, which I never used more of, either at home or in America, for a pig of from two hundred to three hundred lbs., than a couple of ounces, finely bruised and sprinkled over the salt on the fleshy side, with a little around the shoulder bone; consequently a pig of four hundred lbs. would require less of salt petre than one of less weight. In my opinion, salt petre spoils the flavor of bacon by using too much of it, and does no good whatever otherwise.

I would remark here, that *rust* is the great enemy in America; but probably my place of keeping was not of the right kind. The room was between seven and eight feet high, with two windows, and continual light upon the bacon. It became much rusted, from a quarter to a half an inch in depth. This was of a dark yellow, approaching to a darkish brown rust, and very rancid in taste. I tried this manner of cure for two years only, and I am sorry to say that my bacon failed in this respect, by the rust. In all other respects, everything was perfect all through the summer.

Pittston, Luzerne Co. Pa., Jan., 1860. W.

CURING BEEF FOR DRYING.

Eds. Gen. Farmer:—The following is a method of curing beef that I saw my father use fifty years ago, and which I have followed all my life.

The length of time required for the whole is from twenty-four to thirty-six hours. Get a wash tub or any other vessel, and put into it three or four inches of water; then set bricks on their edges around the bottom of the tub, on which lay a few cross-sticks to keep the lower end of the beef from falling into the water; on these sticks place your round of beef (with the bone taken out), with a cord around it to keep it compact; then lay on the top a small sprinkling of salt petre, powdered, a quarter of an ounce; then cover all over with salt, or as much as will lie on at the upper or thick end of the beef. The water in the tub will draw the salt down through every pore in twenty-four hours. Then you may cord it up and hang it up to dry.

I have often cured large mutton hams in the same way,—cutting the small part of the leg off so that the water could draw the salt through the pores.

Pittston, Luzerne Co., Pa, Jan., 1860. W

Genesee Farmer Prize Essays.

ON BUILDINGS SUITABLE TO A LARGE AND SMALL FARM.

What buildings are suitable to a farm, however large or small, is not a subject of minor importance. They are indispensable to the preservation and security of the products, stock and implements of the farm, and the comfort and health of its occupants. The following are my views of buildings suitable to a large or small farm.

The first and most important of these is the dwelling house. The first, because it must needs be the residence of the farmer while all out-buildings are being erected. The most important, because the health and convenience of its occupants should be regarded first. As it is not my province here to enter into detail, in giving a description of a house, I shall only advance some general ideas in regard to it.

The house may be built of such materials as the owner may choose; but in all cases a cellar with walls of stone should be considered indispensable. Then you have a foundation for stone, brick, wood or gravel wall. The cellar should be divided into as many rooms as the farmer may want, for milk, butter, fruit, roots, vegetables, etc. (An ice-house may be so constructed in connection with the cellar as to be of great utility, in making good butter in warm weather, and storing butter, preserves, fruit, vegetacles, etc.) The house should be of sufficient size to accommodate a large family, with additional rooms for laborers, etc., according to the size of the farm.

A farmer's dwelling should contain at least a parlor, dining or living room, cook room, two large bed rooms, a pantry, store-room and closet, on the first floor. The wall should be high, and the first three rooms mentioned not less than 16 feet square. Such a house, when finished, with chamber room in proportion, will afford accommodation for a large family. I would recommend building as nearly square as possible.

A wood-house and wash-room containing boilers, etc., should be considered indispensable in connection with a farmer's dwelling, while adjacent thereto, the water closets should be suitably arranged.

I will here leave the house and its offices, and direct your attention to the barn. The size of a barn for a large farm may be 50 by 86 feet, height, 20 feet. It should be placed on a stone wall. The main floor, 14 feet wide, dividing it in the centre, leaves an equal division on each side of 36 by 50 feet; divide each of these in the centre again, and

you have a bay 18 by 50 feet on each side of the floor. In the end of one of these build a granary, 18 by 18 feet, 8 feet between joints. Directly under the granary may be a root cellar. The remaining 18 by 50 feet may be finished for stables as follows, to wit.: 8 feet high, passage between the bay and manger 5 feet wide, with door at each end, and door to enter cellar-way, between bay and granary. The stalls 5 feet wide, including partitions.

Neat cattle should be well secured in their stalls. I would recommend a chain and strap with buckle, for each stall. A suitable stable for calves may be arranged in one of the above divisions.

There should be two or more doors to each stable, and three at each gable end; one above the main beam and two below, for the admission of hay from the outside. Doors that run upon a track at the top (railroad doors), are much better than those hung upon hinges. This barn should be built with gambol roof.

Sheds should be built with a loft for hay. I oppose anything in the form of a lean-to, or shed without a chamber. Build everything in the shape of stable or sheds, high. A load of hay may be dumped from the horse-fork into the gable end of such a barn as I have just described, with ease.

I will here describe sheds suitable for a large farm. Two buildings, each 30 by 30 feet, 16 feet high, and so situated that they will face each other, the inside corner of each just meeting the corner of the barn. Ends, back and front above the basement, closed tight; one door in each side of the lofts; basement 8 feet high, with large door in the end next to the barn, open in front. These sheds will afford room and protection for a large stock of cattle.

A sheep barn may be constructed the same as one of the above described sheds, except the basement, which should be divided into two equal parts. Each division will be 15 by 30 feet. These should be enclosed tight, except a door ten feet wide, for the passage of the wagon or cart while hauling out the manure. These doors should be short, leaving a space at the lower end, three feet high, for the sheep to pass under. The divisions may be supplied with cribs for feeding in bad weather. Yards may be so arranged that each division will accommodate a separate flock.

The horse and carriage barn should not be connected with other barns. A good and commodious horse barn for a large farm may be as follows, to wit.: 48 by 48 feet on the ground, and 20 feet high. The entrance to the main floor or carriage room should be in the end. The floor should be 20 feet wide, directly through the centre of the barn, leaving an equal division on each side of 14 by 48 feet. These divisions should be finished for stables, except 14 feet off the end of one of them for a granary and feed room. The stables should be 9 feet high. They should be divided into stalls 5 feet wide, facing the carriage room. A trough made of plank, 1½ feet wide and 1 foot deep, placed 3 feet above the floor, will supply the place of manger and feed box. The horse may receive his hay through a tube or box made of boards, the lower end resting on the trough, and the upper extending through the floor above to the loft, where the hay may be thrust in, and drawn out by the horse through an aparture in the side below. Stables should be well ventilated and supplied with light by means of glazed windows. Each stall should have a small door in front, above the trough, through which the horse may receive his food from the main floor. The carriage room should be 12 feet high. There should be an aperture over the centre, through which hay may be raised to the loft, and there should be a passage from the main floor to each stable. A gambol roof is preferable for this barn.

A corn barn and hog house may be as follows, to wit.: 30 by 30 feet in area, and 16 feet high. It may be divided in the centre by a tight wall; one half of the basement being used for corn, and the other for hog house. The corn house should have a solid plank floor, and a 10 feet door, to drive in with a wagon. It should be 9 feet high, with a crib against the outside wall, 30 feet long. There should be a flight of stairs in the end opposite the large door, leading to the chamber above. This chamber should have a tight floor with an aperture in the centre, through which grain or other heavy substances may be raised to the loft. A trap-door to close it will make all tight. This chamber may be used for a granary or store room, and should be supplied with bins for that purpose. The hog house should be divided into three divisions, to wit.: A passage three feet wide along the side next to the corn house, with a door at each end and one in the middle, communicating with the corn house. There should be a feeding room in one end of the remaining division, 20 feet long, and a sleeping room in the remaining 10 feet. The basement of the hog house may be 6½ feet high. The chamber over the hog house may be used as a store room for farming tools and implements.

A hen house may be large or small, according to the amount of poultry the farmer wishes to keep. It should have a tight floor, and be furnished with poles for roosts and boxes for nests. Should have a door to enter it, and a small slide door for the hens, to the exclusion of vermin when closed.

A smoke house should be of stone, brick or gravel wall, 10 by 10 feet, and 9 feet high. The roof and door should be lined with sheet-iron or zinc. There should be an arch in the side near the ground, where the fire may be kindled from the outside, the smoke being ushered in through a flue from the arch.

Isolated barns for the storage of hay, may occupy such locations as are most desirable.

BUILDINGS FOR A SMALL FARM.

The house we will pass by, as its limits as described above, is already confined to the wants of the family.

The barn may be the same size as above. The floor, bay, and stable across one end the same. The basement of the division at the opposite end may be divided by a partition through the middle, leaving two equal divisions, each 18 by 25 feet. One of these may be open on one side for a shed for neat cattle, and the other may be finished for sheep. We now have a barn, stable, shed and sheep barn, all in one compact body, and under one roof. If still less room is needed, leave off that division now occupied for stable, and make the stable in the bay that has the granary in one end. Your barn will then be 50 by 68 feet.

The horse-barn may be lessened in size by leaving off the stable, and 4 feet of the floor on one side; also 14 feet off one end, leaving the barn 30 by 34 feet.

The corn and hog house may also be lessened in size, to suit the wants of the farm.

Middleville, Mich. F. M. MATTESON.

LARGE OR SMALL FARMS—WHICH ARE THE MOST PROFITABLE?

The answer to this question depends upon the conditions. We may divide the agricultural population into three classes: Those of limited or small capital; those of abundant or large capital; and a grade between, possessing a moderate but comfortable income. These definitions are not precise, but suggest the idea intended to be conveyed sufficiently for our purpose. Other conditions embrace locality, market, means of manuring, description of soil, and other attending circumstances.

We lay down the axiom, that, in order to succeed well, *everything* should be well done. A farmer with large capital, possessing a knowledge of his business, would engage extensively in it: and, as he could avail himself of all the best labor-saving machines, of a division of labor, of the best modes of husbandry, of abundant manures and of all special manures, and, in short, of all the appliances of science, it follows that, with him, a large farm would be the most profitable. But we need not dwell on this self-evident branch of our question.

There is a large class, possessed only of small capital, whose natural avocation is that of agriculture. Many of this class commit manifest errors. Their capital is small, but their *hearts* may be large; they aspire to responsible positions, and attempt too much. In a country where land is abundant, and readily procured on credit, a 100 acre farm, instead of 25 or 50 acres, is an alluring bait. With means only to cultivate and manage 25 acres, the remaining 75 acres are a dead weight. The capital, or the interest paid instead, is annually extracted from the means required to improve and cultivate the 25 acres, and too often is the cause of utter failure, and most generally of years of toil and unrequited labor. Men of this class should commence with a small farm and stick to it, until they have so far increased their capital, in money and experience, that they can afford to take one step higher with success.

There are notable instances of great profits realized from cultivating a small farm well, which have been noticed in agricultural journals, to which the reader can refer. It will be easy to reach the average given of an English farm, where they pay high rents and taxes. Wheat is given at 26 bushels per acre, barley at 40 bushels per acre, oats, 60 to 80 bushels, and hay, 2 tons. The product of a 30 acre farm in Maine is given as follows: 700 bushels of potatoes, 80 bushels of barley, 25 bushels of beets, 15 bushels of wheat, 10 bushels of beans, 4 tons of mowed oats, 16 tons of hay, 40 bushels of corn, 20 bushels of carrots, 75 chickens and turkeys, a quantity of garden vegetables, 390 lbs. pork, and 400 lbs. butter. 3 cows, 1 yoke of oxen, 2 heifers, 2 steers, 8 sheep and 4 pigs were kept. The product is valued at $600.

Erasmus Littlejohn, of Middlebury, Mass., had a farm of 56 acres, of which we have the following statistics: Improved land, 22 acres; unimproved, 12 acres, and 22 acres of woodland. Soil sandy and gravelly. His corn cost him 21 cents per bushel, hay, $4 per ton, and potatoes 22 cents per bushel. His net yearly profits rose from $561.54 to $810.92 in four years. He kept a *daily* account.

The farm of N. Hayward & Son, Monroe Co., N. Y., contained 68 acres of improved land, and 10 acres of unimproved. Total receipts, $2,726; total expenses, $1,470 — net profits, $1,256, or $18.48 per acre, in one year.

Joseph Watson, of Clyde, N. Y., has kept the statistics of a 50 acre farm, showing the net proceeds of 45 acres, above all expenditures, to be $399.48 in one year. This farm had no peculiar advantages over ordinary farms. It was not situated near to a city or a special market.

In another case, the products of a 50 acre farm amounted in value to $1,445 in one year. The leading articles were, 10 acres wheat, 35 bushels per acre; 6 acres apples, 200 bushels per acre; 5 acres corn, 90 bushels per acre; 2 acres potatoes, 200 bushels per acre; 5 acres barley, 40 bushels per acre; 5 acres oats, 50 bushels per acre, besides carrots, hay, pasture, etc.

These instances illustrate what *can* be done on a small farm. Let the reader contrast them with much larger ones around him, and ask the question, whether a small farm, well tilled, in the hands of a man of moderate means, is not more profitable than a larger one would be? If a man's whole capital consists in labor alone, he should undertake only so much as he can do well; and so in every case, according to the *amount of capital*. The first consideration should be the probable outlay required in the business, and then proportion the extent of the business according to the *available* means in labor, skill, and other capital.

There are many things connected with this subject which force themselves on our attention, but the allotted space is already filled. We know experimentally that very mistaken notions exist in reference to the amount of capital required in successful farming operations. A man that is too poor to become a merchant will readily form an opinion that he is rich enough to turn farmer. Let him try the experiment. He will find that a successful farmer of *fifty* acres of land, requires more capital than a great many country merchants, driving a careful and active business on moderate means and fair credit. We have before us a careful estimate of the outlays, for live stock, implements, seeds, food, and labor, *needed* the first year, for one hundred acres of improved land, and they amount to at least $2,000. Estimates like this, and more especially *experience*, will wonderfully tend to increase the respect of great numbers of the free and sovereign people, for the useful and time-honored occupation of the tillers of the soil, well described as the "bone and sinew" of the land. W. O. BUELL.

Perth, County of Lanark, C. W.

SOWING TIMOTHY OR HERDS-GRASS.

"Is it best to sow timothy, or herds-grass, by itself, or with other crops? And what is the best method of cultivation?"

The experience of farmers differs, perhaps, more than that of men of any other profession. For, while mechanics, doctors, lawyers, and others, with a certain rule may expect a certain result, the far-

mer can not make his calculations so surely. If he could, it would have been settled long ago at what time he should sow to insure perfect success. But difference of seasons, climate, and other causes, show him plainly that the time and process which answers well one year, may fail the next.

In regard to sowing timothy with other crops, I have long since given that plan up. It is true that sometimes a crop may be obtained the second year after sowing; but, as a general result, I have found that the young grass grows weak and spindling, and when the crop which has kept it in the shade till harvest is cut, the hot sun is too much for it, and a great portion of it perishes.

After trying various ways and seasons of sowing timothy, the plan which I have settled upon as the most certain, is as follows. Plow the ground thoroughly in the fall, and harrow crosswise until it is well pulverized. Then take three poles and make something like the letter A; hitch to the point where the two ends join, and drag this across the harrowing. This will fill up the holes and level the ground pretty well. Then take a light brush and go across the other way, and there will be a good level bottom for a meadow. This is indispensable, now that machinery is expected to mow the most of our meadows. The ground now is in order to receive the seed, which should be sown any time in February or the beginning of March. My plan is to sow by stakes, and I prefer a light snow to sow upon, as thereby I can better see what I am doing. I sow about a peck of clean seed to the acre, and generally cut a good half crop the first year. Sometimes seed sown in September does well here, but more frequently it is winter killed. This is obviated by sowing in February or March, and, if sown thick enough, we rarely fail. When a set is obtained, a very little good manure hauled out each winter when the ground is hard, will keep it improving.

Never turn on heavy stock when the ground is soft; but the aim should be to keep a level, smooth bottom. With a crop that requires so little after-culture as timothy, every one who wishes to sow should prepare his ground in the very best manner, for the old saying is, "an inch at the bottom is worth two at the top." WM. D. MITCHELL.

Pin Oak, Warren Co., Mo.

ON THE BEST MODE OF RAISING CARROTS, AND THEIR VALUE FOR STOCK.

The varieties of carrots most commonly raised are the long orange, white Belgian, and the improved Altringham. I believe that the long orange carrot is generally preferred as a field crop, although the white Belgian will sometimes produce larger crops. Like all other plants designed for field culture, the carrot has been wonderfully improved in its nature and the abundance of its produce. Such is the great productiveness of this crop, under the best culture, that few, if any others, can equal it in value. The soils best suited to the culture of carrots, are deep, rich loams, and rich reclaimed bogs. Good sandy loams will also produce abundantly. Light, sandy soils will yield good crops, if well manured and thoroughly pulverized; in short, any soil sufficiently rich, and that can be cultivated to the depth of ten or twelve inches, will bring excellent crops. The soil must be thoroughly pulverized to a considerable depth—not less than ten inches will answer, at any rate. All weeds, roots, and stones, should be raked off. As many of the weeds as possible should be caused to vegetate and removed before the carrots are sown, which will save much after trouble in keeping the rows clean. Old, well-rotted manure, should be used, as unfermented dung is apt to cause the "fangs" to grow instead of the long roots.

The manure should be plowed in and well incorporated with the soil as early in the spring as possible, and the ground plowed several times. By plowing the last time with a side-hill plow—thus turning the furrows all one way, and when four or five furrows are plowed, raking them, the raker standing in the last furrow, and drawing all the rubbish into the furrow, then plowing more, etc., —we obviate the necessity of trampling on the ground, and leave it light and smooth.

Put in the seed in drills 20 inches apart, with a machine. I think they yield quite as large a crop drilled at this width, or even at two feet, as if they were closer together, and with less rows to work. We find they can be grown with greater profit by working the carrot-cleaner, or a small horse cultivator, between the rows, than if all the work had to be done by hand. We plant from the middle to the last of May; and do not know but those planted late do as well as those planted earlier. Two lbs of seed are sufficient for an acre. A little white mustard seed may be mixed in to good advantage, as it serves to mark the rows by its more rapid growth, and enables us to keep the weeds down without disturbing the rows. As soon as the carrots show their third leaf, they should be hoed and cleaned from weeds. Thin them out to about six inches apart in the rows; after this, hoe and weed them often enough to keep them clean. Clean culture is absolutely necessary, to have carrots do anything. The frequent use of the carrot-cleaner will greatly expedite this business.

For digging, a sub-soil plow may be used, running it on the left hand side of the row, which will raise them, if your team work steady, so that two men can pull them and keep up with the team. We harvest them from the 10th to the 25th of November. The freezing of the top of the ground does not injure them; but it is not safe to let them stand too long, lest they should be frozen in solid, so that they cannot be pulled. Throw them in heaps and cart them to the barn, as it is more comfortable cutting off the tops there than in the fields. The tops may be fed to the cows as soon as they are cut off; they make excellent feed, increasing the richness of the milk and butter. The roots will keep better if cut off about an inch above the crown. A cellar that will keep potatoes is too warm for them; they keep better where they can be kept cool. If piled in large quantities, there should be chimneys, made of slats, and set up every few feet through the pile, in order to ventilate them and keep them from heating. In this way they may be kept well till June. If buried in the ground, they must not be piled too deep, and the ventilators should be left open as late as possible.

Carrots are the most valuable of all roots for horses. Every person who keeps a horse should feed some, as they aid in the digestion of the other

food, and keep the horse in better condition than when fed on grain alone; they also keep his coat as smooth and sleek as if it had been oiled. I can keep a horse in better condition on four quarts of oats and four of carrots a day, than on a peck of oats. When fed to cows, they make the milk richer and the butter yellower. Their fattening qualities are proved to be superior to those of any other roots. Six or eight hundred bushels to the acre is a common crop, and larger crops have frequently been obtained.

MYRON E. TANNER.

Clarkstown, Rockland Co., N.Y.

HOW DEEP SHOULD WE PLOW?

This depends, first, upon the richness of the soil; second, upon the depth to which it has been previously plowed; third, upon the character and quality of the subsoil; and fourth, upon the crop which is to be planted.

If the soil be sufficiently rich, it is best that at least an inch of the soil beneath should be upturned to the atmosphere, at each successive plowing, and exposed to the action of the elements. If the land has been what is called "run" pretty hard, and the farmer has no manure with which to restore the exhausted constituents of the soil, it can hardly be said to be best to plow deeper than the previous culturists of the same fields have done. But, as soon as suitable stimulants to vegetation can be applied, we would advise the gradual deepening of the culture, until from nine to twelve inches becomes the habitual thickness of the overturned furrow.

If the subsoil be gravelly and light, there is not as great call for deep working as otherwise, nor is the use of a subsoil plow as much demanded. But soil, no matter of what character, lying upon a flat, level subsoil of hard-pan clay, needs to be made of a good depth, either by its own upturning, or by a gradual encroachment upon the underlying clay. The subsoil plow should also follow the other plow, and thoroughly loosen the brick-like substratum upon which the furrow rests.

The deeper we plow, the further down we bury the seeds of noxious weeds, which have often gathered upon the surface about to be overturned. The more we allow the air to circulate among the loosened particles of the soil, the better is the drainage in a wet season, and the more perfect the irrigation in a dry summer. By allowing the air to permeate freely the texture of the soil, we also bring into contact with its constituents the carbonic acid in the air, the ammonia of the atmosphere, the nitrogen and other elements which the soil needs to maintain its integrity, and support the crops we plant upon it. This deeper plowing enables the roots of the plants to penetrate far deeper, while the loosening gives them a wider range; and whether it be food or moisture which they seek, they are far more certain to be fully supplied. In seasons of excessive rain, the shallow plowed fields, where the earth has only been loosened to the depth of four or five inches, are easily saturated with water, causing the death, or, at any rate, the very sickly appearance of the crop; while the deeply stirred land has permitted the penetration of the fluids to the depth of many inches, washing down richness of nourishment to the very deepest roots, and, while all the land has a sufficiency of moisture, compelling upon none a greater than a proper amount of wetness.

Root crops require a more thorough upturning of the soil than the almost universally cultivated Indian corn. We think that the raising of this purely American product has exerted an injurious influence upon the agriculture of this country. Farmers can, by merely scratching the surface of their land (say, not more than five inches deep), raise, under most circumstances, excellent crops of maize, especially upon newly-cleared soils. This ease of cultivation has led our agriculturists to slackness in the preparation of the land for all other crops, until shallow plowing has almost become the rule instead of the exception. In the older countries of Europe, where land is more valuable and labor more plentiful than in our newly-settled hemisphere, they have learned to improve every foot of the breadth of their lands, and also more inches of the depth than we dare to mention. Cultivation is far deeper than with us, and, as a consequence, crops are both surer and larger. Root crops are raised which would challenge admiration at any of our State Fairs, and grain produced in quantities unprecedented on any of our shallow-plowed and carelessly-cultivated fields.

Let us, as speedily as possible, emulate our European cousins, in their careful application of manures; in their use of every foot of surface, leaving none for weeds or fence corners; and in their depth of cluture—furnishing to the growing crops a land that drinks water of the rain of Heaven, so that neither more nor less than they desire of the soaking moisture, of the fruitful showers and the rain from Heaven, shall be supplied to the absorbing rootlets of the growing crops.

Eastburn, Indiana. MADISON MONTHAY.

BEST TREES FOR A COUNTRY CEMETERY.

The country cemetery should be a consecrated grove, hallowed with respect for the dust of our deceased friends, in whose deep shade their remains may rest undisturbed, amid the flowers of their silent city, surrounded by the most beautiful objects in nature. What a dreadful thought, that our remains must lie in the country cemetery, as we usually see it,—a treeless and shrubless waste, exposed to the glaring sun and the howling winds; the most conspicuous objects being long rows of tilted tomb-stones, and rude, grassless hillocks, surrounded by briars and weeds, driving away all those tender and lofty emotions we should feel in viewing the resting place of the departed. It is sad enough to turn away from life and all we hold dear, without rendering the grave an object of disgust and dismay.

Let us make our burial grounds attractive—places where we can go to muse upon the uncertainty of life, and the glorious awards after death, and awaken aspirations for a better life. Here nature should be beautiful in her own simplicity, grateful shades, open lawns, easy curves, with graveled walks leading to every grave. The trees should be of many varieties, including a large share of evergreens, weeping trees and flowers, and may consist of the following:

HARDY EVERGREENS.

Norway and Hemlock Spruce, Siberian and American Arbor Vitæ; Savin, Red Cedar, Black Austrian, Scotch, Corsican, Pyrennean, Cembrian and White Pines; Balsam Fir, Frazer's Fir, European Silver Fir; Douglass Spruce and American White and Black Spruce; Swedish, Irish, Himalayan and Chinese Junipers; Japan, English and Irish Yews; European and American Holly; Mahonias, and the varieties of Box.

MORE TENDER EVERGREENS FOR SHELTERED LOCALITIES AND THE SOUTHERN STATES.

Deodar and African Cedars, Cedar of Lebanon, Japan Cedar and Japan Yew; Funereal, or Weeping Cypress, Euonymus Japonica, Magnolia Grandiflora and Glaucia, Rhododendrons, Kalmias, Thuja gigantea and pendula, Torreya taxifolia, Cyrilla Racemosa, etc.

HARDY DECIDUOUS TREES.

Silver Maple, Coffee Tree, Magnolia acuminata, American Linden, European and American Larch, Deciduous Cypresses, Elms in varieties, Tulip tree, Oaks in varieties, Beach and Ash in varieties, Catalpa, White and Black Birch, Red Birch, Cornus in varieties, European and American Hawthorn, Rhus Cotinus or Mist tree, Acacias or locust of the hardy varieties.

TENDER DECIDUOUS TREES.

Laburnum, Koelruteria, Pawlonia Imperialis, Japan Sophora, Salisburia, Virgilia lutea, and several of the most handsome Magnolias.

Of the weeping trees, there are now quite an assortment, very appropriate to the purpose among which are: European Weeping Ash, Gold Barked Ash, Weeping Black Ash; also, Weeping Beeches, Elms, Larches, Lindens, Sophoræ, New American Weeping and Babylonian Willows, Weeping Arbor Vitæ, Junipers, Cypresses, etc.

In planting these or other trees, the irregularity and happy combinations of nature should be observed, and the best management they could receive after planting would be to imitate nature in her annual dressings of leaves and decaying vegetable matter. Nothing more will be required. They need no patent fertilizers. I would recommend nothing but a top dressing of leaf mold to keep up the requisite moisture about the roots, and the planting of moderate-sized trees. As regards pruning, I should leave that chiefly to nature also. Clipped and formal trees always look to me like monstrosities, as if nature could not form anything beautiful. I would use pyramidal trees, or those that are naturally so, but would spare them the shears. It is difficult to retain the form by shearing when the trees grow large, and then they are neglected, looking much worse than those that have been left to form themselves in a natural way.

Mt. Victory, O. W. C. HAMPTON.

CULTIVATION OF FLOWERS.

I THINK that a few leisure hours may be spent very agreeably and very healthfully in the cultivation of flowers, that we may combine the ornamental with the useful. Flowers, of all things, are the most innocently simple, and most superbly complex objects of study. Flowers unceasingly expand to heaven their grateful odors, and to man their cheerful looks; they are patrons of human joy, soothers of human sorrow, fit emblems of the victor's triumphs and of the young bride's blushes. Flowers are in the volume of nature, what the expression "God is love" is in Revelation. What a desolate place would be the world without a flower! It would be a face without a smile—a feast without a welcome.

"I deem it not an idle task,
These lovely flowers to rear,
That spread their arms as they would ask,
If sun and dew are here;
For simple wants alone are theirs,
The pure and common too—
The beauty of refreshing airs,
The gift of liquid dew.

"Nay, 'tis no idle thing, I trust,
To foster beauty's birth—
To lift from out the lowly dust,
One blossom of the earth;
Where barrenness before had been,
A verdure to disclose,
And make the desert rich in sheen,
To blossom like the rose."

How much flowers resemble the young heart, in its bright morning, before it has stained the foliage of its sinless years. A tradition of them tells us they were once like youth, in this: that they loved, and talked, and had passions like ours. How often and how fondly the poet revels in the field of flowers. Do they not talk to him? Who has ever heard the soft, low whisper of the green leaves and bright flowers on a spring morning, and did not feel gladness in his heart? Like beauty in the human form, flowers hint and foreshow relations of transcendant delicacy and sweetness, and point to the beautiful and unattainable. From the garden favorite to the dainty wild flower of the mountain, all have an inexpressible charm, an unapproachable beauty. How sweetly and instructively the flower bows its head to the breath of night, or the rude storm. Thus the heart learns to bring a holier offering to the shrine of all good.

"Heart comforts are ye, bright flowers, and
I love ye for your gentle ministry,
And for the ample harvest of sweet thoughts
My soul has garnered in for future use."

We hope our fair friends will not overlook the delightful employment of the culivation of flowers. Every one may have a few; and when the taste is once acquired, it will not readily be relinquished. A woman destitute of the love of flowers seems to us a mistake of nature. The delicate and the beautiful should have sympathy with all in nature that possess the same qualities. The time spent in the cultivation of flowers is not wasted. They contribute to our pleasure; they add to our knowledge of nature; they unfold to us the beautiful, and tend to elevate the mind.

"They in dewy splendor, weep without woe, and blush without crime."

Although every part of a plant offers an interesting subject for study, the beauty of the blossom seems, by association, to heighten the pleasures of scientific research.

Flowers are indeed lovely; yet they are destined for a higher object than a short-lived admiration; for to them is assigned the important office of producing and nourishing the fruit. Like youthful beauty, they are fading and transient; and may our youth so improve the bloom of life, that, when youth and beauty shall have faded away, their minds may exhibit that fruit which it is the important business of the season of youth to nurture and mature. L. N.

Windsor, O.

The various families of Potatoes in cultivation having decided to hold a Convention, they duly met, and, after the meeting was called to order and a great *Rohan* appointed Chairman, *Lady's Finger* was duly chosen Secretary, who, using a mushroom as desk, proceeded to take notes of the proceedings. She is noted for the number of her eyes, and her appointment gave general satisfaction.

Peach Blossom opened the Convention in his usual flowery manner, and introduced a resolution to organize a Society to be named "The Society for the Amelioration of the Condition of Potatoes." He claimed that many members of the family would be greatly improved by a mealier condition of their systems and stated that his own high condition and reputation were largely due to his mealiness of texture, as well as to his largeness of size. He did not wish to "blow" hard or "puff" any system; but a more elegant color was much needed by many of the race.

Merino next took the floor, in opposition to the resolution. It seemed to him but a plan to endeavor to make the whole family more palatable to the monster *Man*. Potatoes will get into hot water soon enough without using any extra efforts. *Merino* had no desire to be put down. The interests of the Convention were vast, and he would advise that they plant themselves firmly in their true positions.

Prince Albert differed from *Merino*, advocated the resolution, which he heartily seconded. Entertained the highest respect for all potatoes, though some were fitter subjects for steam and starch than others. Could produce 500 bushels per acre, and defied others to do as well. Spoke of his eye-brow over his eyes, and asked gentlemen if they saw anything green there? Any way, his health was always good, and no cancer had yet appeared on his face, and his only sufferings were from boils and tubercular consumption. Took first premium at State Fairs in 1857, 1858 and 1859.

Early June thought that *Prince Albert* must have recently come from a potato ball. Some of the older sorts had most evidently been run into the ground, while the newer ones were run to seed. Some were very watery, and needed the amelioration spoken of. The sooner they were allowed to "go to pot" the better. (Cries of "dry up.") Moved an amendment, that "No potato hereafter be in any way connected with a broil."

The Chair decided the amendment out of order.

Pinkeye advocated improved cultivation; knew it to be a "*harrrowing*" subject, but hoped always to be able to "come up to the scratch."

Kidney opposed the resolution; thought there were societies enough. Potatoes were doing well enough. He found that among all the *hills* that flesh is heir to, he was benefitted by viewing them *couleur de rose*. Moved to "lay the resolution on the table."

The Chair thought *Kidney* might go "on the table" himself, and decided the motion out of order.

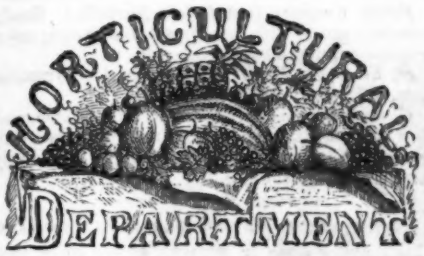
Mercer felt blue: was not mercenary, but wanted to please. A brother of his had fairly turned pale in his efforts to please, and was called an A No. 1 sort.

Mexican defended *Early June*, who was one of the dryest of the family, and ought not to be told to "dry up." Such exclamations furnished food for thought, while potatoes that were thus abusive he considered were not fit "food for pigs."

Chair said *Mexican* was slightly personal.

Mexican appealed, and the Chair thought *Mexican* would be peeled soon enough; adding, "Unless you are quiet, sir, you'll be dished."

The Chairman thought that members had expressed themselves sufficiently as to the resolution, and put the question as to the organization of the Society, when; in spite of the previous apparent opposition, the resolution passed—*all eyes*.



TRANSACTIONS OF THE MASSACHUSETTS HORTICULTURAL SOCIETY FOR 1859.

We are pleased to lay before our readers a few extracts from the volume whose title appears above, believing they will prove both interesting and instructive.

The Massachusetts Horticultural Society, it is well known, is one of the oldest, ablest and most influential societies of the kind in the country, and the decisions of its committees are always regarded with attention. The following are extracts from the report of the Committee on Fruits:

"Strawberries.—The *Wilson's Albany*, a variety that has been highly commended in many quarters particularly for its productiveness, was exhibited in considerable quantity. Those shown were very large berries, of a conical shape, dark colored, and very acid, and did not, on trial, commend themselves for quality to the Committee. Too little experience has yet been had here with this variety to justify the expression of any very decided opinion with respect to its merits.

Hooker's Seedling was shown, and was likewise a large, dark colored berry, acid, but high flavored, and, in this particulur, was preferred to the *Wilson's*.

Peabody's Seedling, also, was exhibited, and though large, and of attractive appearance, was thought to greatly lack richness and flavor.

The older varieties. as the *Brighton* and *Boston Pine*, and *Hovey's Seedling*, seem, so far, to maintain in the opinion of cultivators their wonted superiority,—at least, judging from the exhibitions made of this fruit.

In Belmont, where the cultivation of the strawberry receives great attention, it is said that the kinds most depended upon are the *Hovey's Seedling*, with the *Brighton Pine*; this last is considered by the growers there to be peculiarly adapted to be a fertilizer to the former, as blossoming at the same season.

Walker's Seedling, that may now be considered among the older sorts, and of whose merits a favorable opinion was expressed about the time of its introduction, seems to be receiving more attention, and, in some quarters, has received high commendations. At a meeting of the growers of this fruit in a neighboring town, a resolution was adopted recommending it for general cultivation; and in New Jersey, it had previously received recommendation of a similar character."

"Cherries.—The only new or little known varieties of cherries noticed as calling for any special observation, were the *Monstreuse de Mezel* and the *Cumberland*. The *Monstreuse de Mezel* is a very large cherry, dark colored, sweet and spirited, and was pronounced, on trial, to be of very superior flavor. The *Cumberland* is an American variety, brought out by Dr. Brinckle. It is a large, dark-colored fruit; flesh rather solid, and is rather acid."

"Currants.—No new currant was exhibited.—Although, as has been before stated, there seems to have been a great improvement effected, particularly in regard to size, in this fruit, and it is probably destined to still greater, yet those old favorites and acquaintances, the *Red* and *White Dutch*, still maintain their standing with cultivators. As an evidence of what can be effected by skill and management, specimens of each of these were exhibited the past year, almost rivalling, in size and beauty, the *La Caucase*, the *Versaillaise*, and other new sorts."

"Blackberries. — The blackberries exhibited consisted almost exclusively of the *Dorchester;* and this variety seems to monopolize the attention of growers in this vicinity. The specimens this year have been very large and exceedingly fine,— 25 berries, on one occasion, weighing 6½ ounces; and the exhibition, as made on August 13th, was pronounced by all who witnessed it, superior to any other of this fruit ever made in the Society's Hall."

"Grapes.—As no opportunity has been afforded the past year for any personal experience with respect to grapes, so there is no opportunity for any observations in regard to this fruit in addition to those of the Report of the past year; the opinion then expressed of the superiority, at present, of the *Delaware* and *Diana* to any other varieties, for general cultivation, being still entertained.

At the annual exhibition, specimens of the *Bowood Muscat*, a new hot-house grape, were shown. In form of the berries, their size and color, it bears a very strong resemblance to the *Connon Hall Muscat;* but, it is stated, possesses a decided advantage over that variety in this, that it sets its fruit freely.

Some new hardy Seedling grapes were also exhibited; among others the *Perkins*, a seedling from Bridgewater. The berries were of good size, of a light amber color, that seemed to be juicy, of a sprightly flavor, without much pulp. And the *Dracut Amber*, also a new seedling, with berries of a good size, or large, in color of a dark amber; that, too, was juicy, and without much hard pulp. The season for grapes has been too unfavorable to justify the formation of any decided opinion with respect to the merits of any of these grapes; besides that, no sufficient opportunity of testing them for that purpose has been afforded.

Specimens of the *Massachusetts White* were also upon the table. They did not appear to be ripe; and what is said with respect to the varieties named above, regarding the season, and the want of opportunity of testing them, is applicable to this variety also; but yet, as much has been said respecting it,—and some opinion in regard to it may be perhaps expected,—it is felt to be a duty to state that, in a cursory and slight examination, no superiority over many of the common wild grapes of the country was indicated, and it is not believed that it will prove to be worthy of any cultivation.

The *Massachusetts White Grape* was introduced by Mr. Watson, of Plymouth, Mass., who described

it as 'the greatest acquisition ever made to our hardy domestic grapes,'—'the flesh is tender, juicy and melting, and entirely free from pulp.' A vine, received directly from Mr. Watson, has borne fruit the past season, which has been exhibited before the Society. Other gentlemen have also fruited it, and state their fruit to be identical with that exhibited. There seems to be no good reason to doubt that the fruit is genuine. If so, it is rightly named. The woods of Massachusetts abound with grapes of similar quality. 'Domestic' is an unfortunate adjective to apply to this variety, for, in the opinion of your Committee, it is far from being domesticated. It has ALL the strongly-marked characteristics of the *Wild Fox* or *Bullet* grape, and is utterly unfit for cultivation. The quality of the fruit seems to be wholly irreconcilable with the description of the introducer.

Your Committee deem the case a marked illustration of the value of Horticultural Societies. The public should understand that a new fruit which shrinks from an exhibition, and has no certificate of character, should be received with caution. It should be a rule among nurserymen, that no fruit shall be received into the trade, and disseminated, until it has been exhibited before some responsible Society, or indorsed by responsible horticulturists."

"PEARS.—Some new or little known varieties of pears, have been exhibited, principally at the Annual Exhibition. As these had in many cases been picked green, and when it was otherwise, as but a slight opportunity was afforded of testing their quality, no opinion of their value should or can be expressed. A mere enumeration of their names, with a very general description of their form, color, etc., is all that will be attempted; further trials must be made before coming to any decision as to the rank they should ultimately occupy. Among such were the following.

Willermoz. Large, handsome; smooth, green skin, with blotches or stripes of red in the sun; of a pyriform shape, rather drawn in at the stem and calyx.

Gideon Paridant. Small, smooth; yellow skin, nearly covered with russet; pyriform, with no depression or basin either at the stem or calyx,—a juicy, sweet, rich fruit.

Henri Van Mons. Medium size, smooth, green skin, with bright red in the sun; no depression at stem; calyx large, in a very small and shoal basin.

Auguste Van Kraus. Yellow skin, with blotches of russet; of a flattened, obovate form.

Colmar Artoisonet. Large; green, with red in the sun; of a flattened, obovate form.

La Inconstante. Rather small, pyriform shape.

Alphonse Kars. Small; green skin, with some russet,—pyriform.

Josephine Imperatrice. Small; green, with a little red in the sun; flattened obovate form, and long stem.

Kossuth. Large; green, with some red in the sun; pyriform, calyx open in a shoal basin.

Beurre Chatenay. Rounded obovate; medium; rather rough, green skin, with some red in the sun; short, thick stem.

La Juive. Medium size; obovate; green skin; very slight depression at stem and calyx.

Alexandre Lambre. Rounded obovate; green; calyx large, open in a shoal basin.

Fulvie Gregoire, (not *Fulvie Nouvelle.*) Small; rounded; green, with some russet, red in sun; calyx prominent; stem little on one side.

St. Vincent de Paul. Of medium size, pyramidal form, yellow skin, red in the sun.

General Bosquet. Large; obovate, or elongated obovate; smooth, yellow skin, nearly covered with russet, and some red in the sun,—exceedingly attractive in appearance.

TRANSPLANTING WHITE CEDARS FROM THE SWAMP. This may be done in winter. Select those most exposed, so that the change to the windy upland may not be so great. Cut off the roots and sod in a circle from one to two feet from the trunk, according to the size of the tree. The best time is when the ground in the swamp is but little frozen. The freezing of the earth about the roots after removal does no harm, and the trees may be left on the surface where they are intended to be planted the next spring.

HOW TO MAKE EXTRA BRANCHES GROW ON PEAR TREES.—A writer in the *Virginia Farm Journal* states that he has succeeded in starting branches on his pear trees wherever he wishes a limb to grow. He says: "A careful examination will show plenty of dormant eyes, or knurls, on the stock. To produce a shoot, a slit or gash is made over the eye, and into the wood, with a knife or fine saw, which, by checking the flow of sap, starts these dormant eyes into life, and in three cases out of four a branch shoots forth."

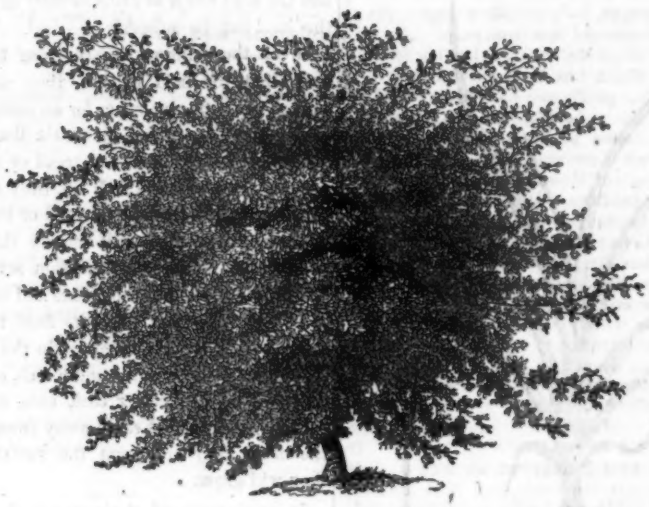
COLOR OF HOUSES—WINTER ASPECT.

EDS. GENESEE FARMER:—In landscape gardening, the color of the house is an important feature. White, the most common, presents too strong a contrast with the lawn and trees in the summer; and in the winter, when the ground is covered with snow, not enough. It gives the house a cold and dreary aspect at this season, when it should be warm and enlivening. The majority of people adorn their grounds and paint their houses with the single view to their agreeableness in the summer, and seem to be insensible to the fact that a landscape can be made as beautiful in winter as in the season of verdure. To do this, plant evergreens instead of deciduous trees, and give your house and buildings some neutral tint—for instance, a light stone color, umber, straw, or a light salmon; the latter of which contrasts very agreeably with the snow and evergreens.

Deciduous trees should not be neglected; but it is rarely that we see a mansion accompanied with too many of those of perpetual foliage. For shelter, the latter should be planted on the north of the dwelling—perhaps in a belt—and set singly, or grouped, in other places, as taste may direct. In this manner, the aspect will be agreeable at all seasons.

D. W. L.

West Medford, Mass.



CUT-LEAVED HAWTHORN.

THE HAWTHORN.

The beautiful engraving we here present to our readers is that of the Cut-leaved Hawthorn (*Cratægus oxycantha laciniata*).

Neither the Common Hawthorn (*C. oxycantha*,) nor its numerous varieties have been much planted in this country, and the beauties and merits of these trees are yet to become known and appreciated.

The Hawthorn attains a height of from twenty to thirty feet and spreads its branches laterally, forming a dense, low-headed tree; the leaves are of a dark shining green, and those of the variety which our engraving represents are deeply cut, or from five to seven lobed, while the Common Hawthorn is more generally three lobed—this feature thus forming the principal distinction, together with the habit of growth, which, in the Cut-leaved sort, is more slender and less robust than that of *C. oxycantha*.

In a plantation of ornamental trees, even a comparatively small one, the Hawthorn, in some of its numerous varieties, should not be omitted. Its dense head, at a height which overtops the shrubs and lies below the taller trees, fills a space to which few other trees are so well adapted; and its white blossoms in May or June, covering it like snow flakes, and the purple berries or haws which succeed, render it peculiarly attractive.

There are several varieties of *Cratægus*, natives of this country, which may also be employed with equal advantage in plantations.

The most valuable of these are *C. coccinea*, or Crimson-fruited Thorn; *C. crus-galli*, Cockspur Thorn, and *C. cordata*, or Washington Thorn. All the above species grow from fifteen to twenty feet high, and when young can easily be transplanted.

GENESEE VALLEY HORTICULTURAL SOCIETY.

The annual meeting of this Society was held February 6th.

The Treasurer's report shows a balance in his hands of $179.41.

The following named gentlemen were elected officers for the present year:

President—Joseph Harris.

Vice Presidents—W. A. Reynolds, James Vick, and L. A. Ward.

Secretary—C. W. Seelye.

Treasurer—F. W. Glen.

The President was authorized by the meeting to appoint the Standing Committees for the year.

Messrs. Joseph Frost, P. Barry, and H. E. Hooker were elected to serve on the Executive Committee.

Recipe for Preventing Rabbits from Barking Trees.—Bitter aloes, 6 lbs.; black sulphur, 2 lbs.; soft soap, 6 lbs.; water, *q. s.*; soot enough to thicken the soup, and a little lime to give it consistency. —Woglog, in *Gardeners' Chronicle*.

Another.—4 oz. soft soap, 6 oz. flowers of sulphur, to a gallon of water, as much quicklime as will bring the mixture to the consistence of paint; and by adding some fresh cowdung to the other ingredients, a greater body is given to the mixture, and it will only want renewing every two or three years. I have used the above mixture many years, and never found it to fail.—Wm. Tillery, in ditto.

ONIONS AND HOW TO RAISE THEM.

The onion (*Allium cepa*) is a vegetable deserving of more extensive culture than is generally the case here. Its use, when young, in salads, and when mature, in soups and stews, is eminently conducive to health. It requires rich, loamy soil, well manured (for which purpose hen dung or guano is best), and pulverized. The subsoil must not be retentive of moisture.

There are many varieties of onion in cultivation, and it may perhaps be thought invidious to recommend one kind in preference to another. As a general rule, the large onions are the mildest flavored, and the small ones the most pungent. Among the best seed kinds are the yellow Portugal, red Tripoli, and Strasburgh. In selecting seed, great care must be taken that it is the growth of the preceding summer, as seed more than a year old does not germinate well. A good plan to insure this, is for the cultivator to select the soundest and best onions of those kinds he wishes to raise seed from, and plant them in the month of May, each kind in a separate spot in the garden. They will produce an abundant supply of seed, which will ripen before the autumn frosts.

The earliest sown onions always prove the best in quality and productiveness: so land intended for their culture is best to be well prepared in the fall, and the seed sown in drills as early in the spring as the land can be properly worked. The distance between the drills varies according to the kind of onion, but for field culture, they should be far enough apart to give room for an occasional horse-hoeing, in which case, about six lbs. of seed will sow an acre. After sowing, tread or roll the drills.

After the plants are well up, they may be hand-hoed and thinned out to an inch or two apart. In another month, they will require thinning again, which may be done as occasion serves, and the young onions put up in bunches and sent to market to be sold for salads. At the final thinning, they should stand six inches apart in the rows. Keep the ground clean of grass and weeds, either by hand or horsehoe. In either case, care must be taken to keep the loosened earth away from the bulbs, as the more they are upon the surface the larger they will grow.

In some parts of the country, they are subject to the ravages of the larvæ of the onion-fly. If they have attacked the crop, it becomes a difficult matter to get rid of them. Various remedies have been tried, but there is nothing so effectual as to pull up every onion containing a grub and burn it.

As soon as the early autumn frosts appear, it is time to gather the crop. Let the onions be pulled by hand, and, the tops being removed, they are spread out to dry, either in the sun or on the floor of some outbuilding. When thoroughly dried, they may either be stored in the cellar or kitchen loft, giving them an occasional turning; or hung up in nets.

THE TOMPKINS COUNTY KING APPLE.

Eds. Genesee Farmer:—I have seen this apple for the first time this winter, in the Boston market. They were large to very large, somewhat resembling the *Spy*, but rather higher colored. The quality I regard as *best*—a little inferior to the *Baldwin*. It appears to be a fruit which ripens up well, better than the *Spy*, to which it seems somewhat allied. As an export apple, I should think it inferior to the *Baldwin*, on account of its tenderness. When grown in New England, however, the probability is that it will become firmer at the expense of size, but not inferior in quality. Time, only, can show. These apples were offered for sale at from $3 to $3,25 per barrel—very cheap for so a nice fruit; but good apples must be well known to bring a good price.

It is not to be expected that we shall very soon discover an apple so worthy of general cultivation as the world-renowned *Baldwin*, but those that fall a little below it should not be neglected. This, with the *Russet* and *Greening*, the *Hubbardston Nonsuch*, and the *Hunt Russet*, are our popular and reliable winter apples. D. W. L.

West Medford, Mass.

Ladies' Department.

BED-ROOM DECORATION.

We condense the following from the *Cottage Gardener*. It presents a pleasing picture which we should be glad to see more common. We think we can see woman's hand in it all.

"Oh, give him taste! It is the link
Which binds us to the skies—
A bridge of rainbows thrown across
The gulf of tears and sighs;
Or like a widow's little one—
An angel in a child—
That leads him to his mother's chair,
And shows him how she smiled."

To show you that the admission of vegetable life into bed-rooms is more in vogue than formerly, I will give you a rough sketch of an apartment which I was privileged to enter, and have permission to to describe. The occupier of this apartment recognizes the principle, that

"Whatever cheerful and serene
Supports the mind, supports the body too."

At the end of the room is the window with balcony, from which spring clusters of blossoms of intermingled *Calystegia pubescens* and *Tropæolums*. These run up either side of the window on lattice-work. From an ornamental *terra cotta jardinette* rise plants of *Lysimachia nummularia*, covering a wire-work screen with their golden blossoms. Fronting the window, are the toilette-table, glass, etc. In the first break on the left hand side of the room is the washhand-stand; over this engravings and pictures in oil colors, etc., etc. The middle projection contains a gas stove with flue entering the chimney; above this the mantel-piece. At each end is a case of ferns and mosses arranged amid rockwood, colored scenery at the back imparting an additional charm.

Over one of these cases we find the lines—

"The green and graceful fern,
How beautiful it is!
There's not a leaf in all the land
So beautiful, I wis.

"Have ye e'er watch'd that ball unfolding,
With each stem and leaf wrapp'd small,
Coil'd up within each other
Like a round and hairy ball?

"Have ye watch'd that ball unfolding,
Each closely nestling curl,
And its fair and feathery leaflets,
Their spreading forms unfurl?

"Oh, then most gracefully they wave
In the hedges like a sea:
And dear as they are beautiful
Are those fern leaves to me."

Over the other case—

"The tiny moss, whose silken verdure clothes
The time-worn rock, and whose bright capsules rise,
Like fairy urns, on stalks of golden sheen,
Demand our admiration and our praise
As much as cedars kissing the blue sky,
Or Krubal's giant flower. God made them all,
And what He deigns to make should ne'er be deem'd
Unworthy of our study and our love."

Between the cases is a duplex statue in plaster, and amid the centre ornaments a boquet of choice flowers.

Over the mantel-piece are views of the localities in which the ferns were collected—Llangollen Vale, Tenby, etc. Above, up to the ceiling, are photographic and lithographic portraits, surmounted by the Art Union head of Christ.

In the next break we find pictures printed in colors, and a heating flue in connection with a system of hot-water apparatus. Lastly, next the door is a table with Wardian case, containing ferns and mosses, many of them exotic.

"Of all modes of enlivening the aspect of an apartment, there is, perhaps, none more pleasing than the sight of plants and flowers suitably arranged and distributed. The enjoyment and instruction they afford are within the reach of all; the poor may partake as well as the rich. Great means and appliances are not needed. To the thoughtful mind, the contemplation of the phenomena of vegetation is a constant source of interest." Especially is this so to the Christian. Whatever he finds

"Of beautiful or grand
In nature, from the broad, majestic oak
To the green blade that twinkles in the sun,
Prompts with remembrance of a present God."

—*Horticulturist.*

MAKING BUTTER IN WINTER.

Eds. Genesee Farmer:—In common with many of my neighbors, I have experienced much difficulty this winter, in getting butter to "come" in churning. We had usually warmed the cream by the aid of a common thermometer, to 55, 60, 65, and 68 degrees of Fahrenheit, without success, as well as having churned it for several hours in one of those zinc churns having a marked thermometer attached to them. At length I procured a small zinc thermometer, which the manufacturers now make unattached to the churn, and when I saw that the degree marked upon it was 62, I suspected at once the cause of our repeated failures. We then warmed to the exact temperature of 62° some cream which had been previously churned for four or five hours, and after churning it about ten minutes in a small stone plunge churn (also warmed), butter of excellent quality was obtained. We have since had no trouble in bringing our cream to butter.

Canada West. A FARMER'S WIFE.

ORIGINAL DOMESTIC RECEIPTS.

[Written for the Genesee Farmer by various Correspondents.]

Fancy Froth for Blanc Mange or Creams.—Beat the whites of four eggs to a froth, then stir in half a pound of preserved raspberries, cranberries, or strawberries. Beat the whole well together, and then pour it over the top of your creams or blanc mange.

Cream Custard.—Mix a pint of cream with one of milk, five beaten eggs, a tablespoonful of flour, and three of sugar. Add nutmeg to the taste, and bake the custards in cups or pie-plates in a quick oven.

Lemon Jelly.—Put on a slow fire an ounce of isinglass pulled into small pieces and rinsed, a pint of water with the rind of six lemons. Stir it constantly until dissolved. Then add a pint of lemon juice, and sweeten it to the taste with nice white sugar. Boil the whole for four or five minutes, color it with the tincture of saffron, and let it pass through a flannel bag without squeezing it. Fill your jelly glasses with it when partly cool.

New Advertisements this Month.

Spring Garden Seeds—J. M. Thorburn & Co., New York.
Flower Seeds by Mail— do do do
Pear Seed— do do do
Who can Equal it—G. Westinghouse & Co., Schenectady, N, Y
Beautiful French Gladiolus—J. M. Thorburn & Co., New York,
Wethersfield Seed Sower—Rodney Kellogg, Hartford, Ct.
Hubbard Squash—H. K. Bliss, Springfield, Mass.
Bell Cranberry Plants—F. Trowbridge & Co., New Haven, Ct.
New and Valuable Squashes—J. M. Thorburn & Co., New York.
Rare and Beautiful Flowers—B. K. Bliss, Springfield, Mass.
The Perfected Tomato—J. M. Thorburn & Co., New York.
Fruit and Ornamental Trees for the Spring of 1860—Ellwanger & Barry, Rochester, N. Y.
Lawton Blackberry—William Lawton, New Rochelle, N. Y.
Bee-Keeping Explained—M. Quimby, St. Johnsville, N. Y.
Potato Oats and Seed Potatoes—P. P. Bradish, Batavia, N. Y.
Farm for Sale—Elijah Williams, Wallingford, Ct.
Farmers Read—Wm. W. Eggleston, Albany, N. Y.
New and Rare Flower Seeds—J. M. Thorburn & Co., New York.
The Lawton Blackberry—Wm. Lawton, New Rochelle, N. Y.
Queen's Seedsmen—Peter Lawson & Son, Edinburgh and London, Great Britain.
Five Splendid Strawberries—H. E. Hooker & Co., Rochester, N. Y.
Isabella and Catawba Grape Vines—R. T. Underhill, M. D., New York.
Japan Apple-Pie Melon—B. K. Bliss, Springfield, Mass.
Year Book of the Farm and Garden—A. M. Spangler, Philadelphia, Pa.
The Farmer and Gardener—A. M. Spangler, Philadelphia, Pa.
Hamilton Nurseries—W. Holton, Hamilton, C. W.
New American Style of Architecture—Saeltzer & Volk, New York.
Stocks for Nurserymen—E. Y. Teas, Richmond, Indiana.
Old Rochester Nurseries—Samuel Moulson, Rochester, N. Y.
Hubbard Squash Seed—Jas. J. H. Gregory, Marblehead, Mass.
Grapes—C. P. Bissell & Salter, Rochester, N. Y.
Geneva Nursery—W. T. & E. Smith, Geneva, N. Y.
Marblehead Drumhead Cabbage—James J. H. Gregory, Marblehead, Mass.
New and Choice Vegetable and Flower Seeds—Lemuel Norris, Windsor, Ohio.
From $75 to $150 per Month—D. L. Milliken, Brandon, Vt.

Notes on the Weather from January 15th to February 16th, 1860.—The Notes on the preceding month closed with the warmer week ending with January 15th. The snow had melted; the sleighing ended on the 10th, and did not return in the month, nor in the next fortnight after. The weather, however, has been pleasant as a whole; the ground frozen, and the wheeling fine.

In the last half of January the average heat was 30.7°, or 6° above the mean for 23 years. On January 31st the cold was 8°, and the lowest in that half of the month.

The average heat of the whole month was 29.8°, more than 4° above the mean for 23 years.

Snow fell in small quantities, but the water of the month was only 1.042 inch, a very small quantity. Still, there seemed to be water enough except in some cisterns. The month was a little warmer than that of 1859, which was called uncommonly warm, though it had one day on which the thermometer was 12° below zero, or 16° colder than one last January, which began and ended in cold weather.

February began with those cold days, and on the 3d the cold was 4° below zero, since which 8° above cypher has been the coldest, on the 10th. Some rain and snow fell in the first 14 days; but not enough for sleighing. On the 15th fell about 5 inches of snow, with a little rain at evening, then colder, and sleighs began to move.

In this half of February the average heat was 22.7°, or 2° below the mean for 23 years. The water fallen is much below the average.

The winter so far, having such uniformity and so little thawing of the surface must have been favorable to our winter wheat.

The gale of Thursday afternoon, the 9th, to Friday noon, was very extensive, and along the Atlantic coast was severe and did much damage in many places. It was from the West and S. of West, and was followed by three days of colder weather. So far the weather has been favorable, and the cold has not injured the buds of peaches and grapes; we may expect they will escape injury in the remaining part of the winter.

New York State Agricultural Society.—The Annual Meeting of this Society was held in the city of Albany on the 8th and 9th days of February last. A letter was read from citizens of Elmira, applying in behalf of that place as the location of the next Show, and offering to meet in all respects the Society's usual requirements. The usual committee of twenty-four, to nominate the officers for the ensuing year, and recommend the place for holding the next annual Fair, then withdrew for consultation, and after a brief and harmonious session, returned with a report recommending Elmira as the location of this year's Fair, and proposing for election the following officers, who were duly balloted for and unanimously chosen:

President—BENJ. F. HUNTINGTON, Oneida county.

Vice Presidents.

First District—John Jay, of Westchester county.
Second—Charles S. Wainwright, of Duchess.
Third—Herman Wendell, of Albany.
Fourth—Calvin J. Hulburd, of St. Lawrence.
Fifth—John Butterfield, of Oneida.
Sixth—Francis M. Rotch, of Otsego.
Seventh—James O. Sheldon, of Ontario.
Eighth—T. C. Peters, of Genesee

Cor. Secretary—B. P. Johnson, of Albany.
Rec. Secretary—Erastus Corning, Jr., Albany.
Treasurer—Luther H. Tucker, of Albany.
Executive Committee—Hon. A. B. Dickinson, of Steuben; L. Chandler Ball, of Rensselaer; Chas. P. Wood, of Cayuga: Ezra Cornell, of Tompkins; and Samuel T. Thorne, of Duchess.

Patent Office Seeds.—The Commissioner of Patents gives notice that, owing to the reduced appropriations of the last Congress, he will be unable to supply seeds, as heretofore. Those who have written for them, either to the Patent Office or to members of Congress, will therefore understand why their requests are not complied with.

At the late annual meeting of the United States Agricultural Society at Washington, Marshall P. Wilder, of Mass., was voted the "grand gold medal of honor," as the founder, First President, and constant patron of the Society. This is the largest and most valuable medal struck in America.

APRIL PREMIUMS.—Our friends should not forget that we offer *two hundred and thirty-five dollars* in Cash Premiums, to be awarded to the greatest number of subscribers sent in by the 15th of April. So far as we have heard, very few are competing for these Premiums, and they will undoubtedly be taken by very small clubs.—There is not one of our readers who could not take one of the largest of these premiums.

Last year we offered twenty prizes, amounting to $211 These prizes were taken by clubs of 23, 24, 25, 26, 29, 30, 34, 36, 43, 46, 53, 54, 55, 65, 70, 73, 74, 95, 123, and 141.

This year there are twenty-one prizes, amounting to $235. (See last page of this number.) There is yet abundance of time to compete for these Prizes.

Some of our agents in distant places think they stand a small chance to take our premiums. This is not the case. There is no section of country where an active friend of the cause might not easily obtain subscribers enough to take the highest prize. Our April premiums last year were taken by persons residing in Michigan, Indiana, Ohio, Pennsylvania, New York, Canada West, and Utah Territory.

THE busy season of the farmer and gardener is approaching, and no one should be without an agricultural and horticultural paper. We have the testimony of many of our readers, that a single hint in some number of the *Genesee Farmer* is worth more to them than a whole year's subscription. Unlike a miscellaneous paper, it is convenient to preserve, and is always on hand for reference. If you, kind reader, have any neighbors who do not take a good agricultural paper, tell them that the *Genesee Farmer* is what they need, and so marvelously cheap that all can afford to take it. If you wish them, we will send you a few copies for gratuitous distribution. We aim to make the *Farmer* worthy of your countenance and support—a paper that you will not be ashamed to recommend to your friends.

ADVERTISENENTS.—We have more advertisements this month than we desire, and have been obliged to omit several. Still, they are all of interest to our readers. We rigidly exclude patent medicines, and all deceptive advertisements. There is no better medium of advertising than the *Farmer*. It has large lists of intelligent readers in *every* State and Territory, and in the Canadas, Nova Scotia and New Brunswick. Our friends, in writing for anything advertised in our columns, would oblige us by saying that they saw the advertisement in the *Genesee Farmer*.

A RARE OFFER.—Five numbers of the *Rural Annual* and *Horticultural Directory* have now been published, viz: 1856–7–8–9 and '60. We will send the whole series for *one dollar*, prepaid, by mail to any address. These five volumes contain a fund of valuable information on all horticultural and agricultural subjects, to be obtained nowhere else for double the money.

IF any of our agents have not received the *Rural Annual*, or extra copies of the *Farmer*, to which they are entitled, (see list of specific premiums on last page,) we will most cheerfully send them. In the hurry of mailing they may, in some instances, have been forgotten, but we are always desirous to correct them and all other mistakes.

ADDITIONS CAN BE MADE TO CLUBS at any time, at the club rates. After you have got a club of eight subscribers, you can send on the names of one or more subscribers at 37½ cents each. If the members of the club have not had the *Rural Annual*, they can still have it at the club rates. In other words, we will send you eight copies of the *Annual* for one dollar.

THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY FOR 1860.—Every one interested in the cultivation of the soil—in fruit or ornamental trees, in the garden, orchard or farm—should have a copy of this work. It will be sent, prepaid, by mail for 25 cents. Address JOSEPH HARRIS, Rochester, N. Y.

WE are now printing another large edition of the Rural Annual and Horticultural Directory for 1860, and can supply all orders the day they are received. All our agents can have the work for old and new members of their clubs at the lowest club rates, or eight copies for one dollar! (12½ cents each.)

THE press on our columns is still so great that we are compelled to leave out many valuable communications, illustrations, inquiries and answers, and much other matter. Our friends must bear with us. We shall find room for them bye-and-bye.

THE GENESEE FARMER TO ENGLAND.—In reply to several inquiries on the subject, we would say that we will cheerfully send the *Genesee Farmer* to Great Britain, on the receipt of thn subscription price, together with 24 cents for the postage.

THE *Genesee Farmer* and *Rural Annual* is sent in clubs of eight for fifty cents the two! Those who have not had the *Rural Annual* for 1860, can still avail themselves of this offer.

WE now stereotype each number of the *Genesee Farmer*, and back numbers of this year can always be furnished.

Inquiries and Answers.

LARGE EARS OF CORN.—I would like to know from the subscribers to the *Genesee Farmer* how large corn ears they have grown. Last year I had some ears that weighed one and a half pounds, measuring nine inches in circumference. Some had ten, eleven and twelve hundred grains on an ear. I had one ear of corn that had twenty-six rows, and fourteen hundred and fifty-seven grains. I think this ear hard to beat.—MARTIN SMITH, *Hunterdon Co., N. J.*

BARK-LOUSE—LAWTON BLACKBERRY—PEARS,—(O. BUCHNER, *Clear Creek, C. W.*

The best remedy for the *bark-louse* on your Apple trees is to scrub the trees thoroughly with a stiff brush and soap-suds in the month of June, when the insects are young; we would advise you not to make use of tar and oil for that purpose.

The seeds of *Lawton Blackberry* would, probably, not produce their kind.

The five following named *Pears* are among the best, as Summer and Fall varieties, to cultivate on Pear stock: *Bloodgood, Bartlett, White Doyenne* or *Virgalieu, Flemish Beauty* and *Sheldon*.

High Bush Cranberry—Medlar—Berberry—Blueberry—Spanish Chestnut.—(J. W. Helm, *Paris, Mo.*)

The *High Cranberry* (*Viburnum oxycoccus* of Pursh, and *V. opulus, B. Americana* of Torrey and Gray, and other modern botanists), is a native of the Northern United States and British America. The common Snowball of our gardens (*V. opulus. B. roseum,*) is closely allied to it, botanically.

The High Cranberry is a handsome shrub, attaining a height of eight or twelve feet, and in its wild state is to be found in woods and borders of fields. It bears clusters of white flowers in June, which are succeeded by red, acid fruit, resembling the Common Cranberry in flavor, for which it is also a good substitute.

The fruit ripens late, and remains upon the bush after the leaves have fallen.

This plant is well worthy of cultivation, both for ornament and for use, and will adapt itself to any good garden soil.

The *Medlar* (*Mespilus Germanica,*) is allied to the *Cratægus* or Thorn, *Pyrus*, the Apple and Pear order, *Amelanchier*, the Shadberry or June Berry, and many others.

The fruit is from an inch to an inch and a half in diameter, of a greenish color, which turns to a dull brown when mellow.

There are several varieties in cultivation, but none of them are really valuable, except, perhaps, for specimen trees.

The fruit must be left on the tree as long as possible in the fall; or, if picked too soon, it will afterwards be apt to shrivel. "Spread them singly upon sand, the calyx or open side downwards, and dipping the stalk end in a strong brine of common salt and water, which is said to check the occurrence of moldiness." They are edible only when just on the point of complete dissolution.

The tree is somewhat ornamental, and has great numbers of white flowers in the spring.

The soil most suitable for it, and its training and pruning, should be similar to that of the Pear.

Berberry, or *Barberry* (*Berberis vulgaris*).—This is a beautiful and useful shrub, of which there are several varieties in cultivation, and it cannot be too generally planted. We cannot now go into an enumeration of the different varieties, or their respective merits. The Common Red is probably the most valuable for its fruit, which is used for a preserve, for making into jelly, and as an ornamental pickle. The flowers are a bright yellow, and the bush, both when in blossom and in fruit, is very handsome.

It prefers a light or gravelly soil, and is of the easiest cultivation, requiring only such pruning as is necessary to keep it in good shape.

Blueberry.—Several varieties of the *Vaccinium* are called Blueberry. They belong to the same natural order as the Huckleberry or Whortleberry.

The common low Blueberry (*V. Pennsylvanicum,*) is a low under-shrub from six to twelve inches in height, growing in dense patches in thickets and pastures, in the Eastern and Middle States and Canada; bearing large, blue, sweet and nutritious berries. We know nothing of its value as a cultivated plant, but observe they are advertised for sale in some of the catalogues of French nurseries.

Trees of the *Spanish Chestnut* can be obtained here at the nurseries, but the nuts are not kept for sale.

Morgan Horses.—(Wm. Douglas, *C. W.*) These horses are highly esteemed here, principally for their speed and showy action. They make excellent roadsters and carriage horses, but we should think them rather light for farm work, especially where the soil is heavy. We believe the introduction of Morgan blood among the Canadian horses would prove beneficial. You can obtain much information on the subject, by consulting D. C. Lindsay's work on "Morgan Horses."

The Best Crop for an Old Orchard Sod.—(Henry Houpt, *Tompkins Co., N. Y.*) Oats, or corn, if not too shady for the latter, would do well; as would potatoes. Spring wheat would not answer. We should prefer a good summer fallow to clean and mellow the land, and then seed it with timothy and clover in August. Buckwheat would not ripen well, but would answer to be plowed under. Vetches, for soiling, would answer better, perhaps, than anything else.

Rye as a Green Manure.—(W. S. D., *Upper Tract, Va.*) We do not think it is a good practice to sow rye for the purpose of enriching the soil for other cereals. Peas or clover would be much better.

Tile Machine.—(C. Grant, *Kent Co., C. W.*) F. M. Mattice, of Buffalo, N. Y., makes an excellent machine for making underdraining tiles.

Cropping Dwarf Pear Orchards.—Is a crop of melons and then one of turnips in the fall, too *exhausting* on the soil, in a young dwarf pear orchard? The trees have been planted two years, each year manured and plowed in the spring, then planted in melons, one hill in the center between the trees. They are plowed the last time when the vines have nearly covered the ground, and turnip seed sown. One hundred feet square, holds one hundred trees, and the two years past it has produced melons enough for a family of eight persons, all we use and some for the neighbors, and in the fall sixty bushels of turnips after being topped. Will you or some of your correspondents please answer through the *Farmer* if this course is advisable? It will more than pay the expense of cultivating the trees.—A. Harrold, *Sugar Grove Farm.*

With the annual manuring and good cultivation which our correspondent gives his orchard ground, we think he may safely crop it as he does; the growth of the trees themselves would soon indicate the propriety or impropriety of any mode of tillage. After the trees become larger and yield annual crops of fruit, it will no doubt be found best to allow them the exclusive use of the ground without, however, omitting the manure and cultivation.

Notices of Books, Pamphlets, &c.

THE NEW AMERICAN CYCLOPEDIA: A popular Dictionary of popular Knowledge. Edited by George Ripley and Charles A. Dana. Vol. 8 Fug—Hay. New York: D. Appleton & Co. 1859. F. R. Hall agent for Rochester and vicinity. Price $3 per volume.

The following books are for sale by Steele, Avery, & Co., of this city.

CHAMBERS' ENCYCLOPÆDIA: A Dictionary of Universal Knowledge for the People, on the basis of the latest edition of the German Conversations Lexicon. Illustrated by Wood Engravings and Maps. Parts 8 and 9. New York: D. Appleton & Co. Price 15 cents per number.

A POPULAR HISTORY OF THE UNITED STATES OF AMERICA, from the Discovery of the American Continent to the Present time. By Mary Howitt. Illustrated with numerous engravings. In two volumes. New York. Harper & Bros. Price $2.

SEVEN YEARS, and other Tales. By JULIA KAVANAGH, author of "Nathalie," "Adele," etc. Three volumes in one. New York: D. APPLETON & Co. Price 50 cents.

HISTORY OF PETER THE GREAT, Emperor of Russia. By JACOB ABBOTT. With engravings. New York: HARPER & BROS. Price 60 cents.

THE DIARY OF A SAMARITAN. By a Member of the Howard Association of New Orleans. New York: HARPER & BROS. Price $1.

SWORD AND GOWN. A Novel by the author of "Guy Livingstone." New York: HARPER & BRO. 1859. Price 25 cents.

LOSS AND GAIN, OR MARGARET'S HOME. By ALICE B. HAVEN. New York: D. APPLETON & Co. Price 75 cents.

STORIES OF RAINBOW AND LUCKEY. By JACOB ABBOTT New York: HARPER & BROS. Price 50 cents.

HARRY'S SUMMER IN ASHCROFT. With illustrations. New York: HARPER & BROS. Price 50 cents.

All the above books can be obtained from the respective publishers, sent, prepaid by mail, for the price annexed.

REVIEW OF THE MARKETS.

GENESEE FARMER OFFICE,
ROCHESTER, N. Y., FEB. 18, 1860.

THE markets for Flour and Wheat have shown but little animation since our last report; on the contrary, they have been marked by a general and prevailing tendency to lower prices. An occasional exception to this general feature has been manifest in a temporary effort to produce an excitement. Such effort, however, has been responded to by no indications of confidence. The current rates are above an average for this country. A reliable advance, therefore, is not probable, unless it should become apparent that there is a deficiency, in some quarters, of sufficient importance to take off the surplus which may exist here, and a part of that which would otherwise be taken for domestic consumption. The export trade, though considerably in advance of what it was last year, is still insignificant in amount. Were foreign orders, to any extent, awaiting execution, holders would virtually prevent the fulfilment of such orders by increasing firmness. That England would take a large quantity of breadstuffs from America at a reasonable price, between the present time and next harvest, may be regarded as almost certain. That a steady demand, from that quarter, will exist in the face of a constantly increasing tendency to advancing prices, is very dubious. An effort has been made to create an impression that a material advance may be expected at no distant day, and farmers—especially in England—have been advised to withhold their wheat. The expediency of such a course may well be questioned. Such efforts, however, seem to fail of effecting the accomplishment of the object sought, as the markets have been well supplied and prices have been barely sustained.

Coarse Grain is generally lower, but tolerably steady at the decline. There is a fair demand for Barley, with a steady market. Rye is rather dull, with a large supply. Corn steady, with a moderate demand. Oats are inactive, with a large supply, and limited inquiry. The demand for White Beans is fair; but, with a more liberal supply, the market is lower. Canadian Peas are lower and dull.

The markets in England, for Wheat and Flour, are very inactive, and sales are effected with difficulty unless a decline be submitted to. The stock of foreign Wheat and Flour in store at the present time, is largely in excess of what it was at the same time last year, and there is still a large quantity of old Wheat in farmers' hands. Clover seed, both red and white, is very firm—the latter especially—at improved rates.

The demand for Provisions is good, and the market is higher. There has been an active speculative movement in Pork, which is still quite brisk. Beef, with a reduced stock, and a fair demand for both local trade and shipment, is very firm. Bacon has inproved, and is active, with light receipts. Cut Meats are steady and in good request. Lard has advanced, with less arriving, and a good local and export demand. Dressed Hogs have improved, and are quite active at the advance. Butter is in fair demand, with a good supply. Cheese is reduced in stock, and is worth more money.

The trade in Beef Cattle is more active at better rates, consequent on a short supply. There is no improvement in quality, but rather the reverse. Sheep and Lambs are worth more, with a limited supply. The demand for Swine is active, influenced by the firmness of Provisions, and the inquiry for fresh pork.

Wool is steady and firmer, but not active. The demand is quite limited; but, for all desirable qualities, is fully equal to the supply.

ROCHESTER MARKET.—Feb. 18.

FLOUR—Transactions limited to the local trade, with a dull market. Superfine, $5@$5.50; extra, $5.75@$6.50. Buckwheat Flour $1.75 per 100 lbs.

GRAIN—Wheat steady and quiet. White, $1.35@$1.40; red, $1.12@$1.15. Corn. 65c. Oats, 35c. Barley, 62½c. Rye, 73c@75c. Buckwheat, 40c@45c. White Beans, 75c@90c.

SEEDS—Clover, $4.50@$4.75. Timothy, $2.25@$2.50. Flax, $1.30

PROVISIONS—Mess Pork, $17@$18 per bbl. Hams—smoked, 10c@12c. Shoulders do, 8c@10c. Lard, 11c@12c. Butter—fresh roll, 16c@17c; do. firkin, 15c@16c. Cheese, 8c@10c per lb. Eggs, 17c per dozen. Chickens, 8c@9c per lb. Turkies, 10c@11c per lb. Potatoes, 31c@40c. Apples, 38c@50c; dried do, $1.12@$1 25 per bushel. Beef, 5½c@6½c per lb. by the side. Dressed Hogs $7.25@$7.75 per 100 lbs.

CATTLE MARKET—Beef cattle, $3.50@$5.00, live weight. Sheep, $4@$7 each. Calves, $4@$7 each.

HIDES—Slaughter, 5½c. Calf skins, 10c per lb. Sheep pelts, $1.25@$1.62½ each. Tallow, 8c per lb.

HAY—$12@$18 per ton.

WOOL—No sales—worth 40c@50c per lb.

NEW YORK MARKET.—Feb. 15.

FLOUR AND MEAL—The market is less active. State superfine, $5.00@$5.05; $5.20@$5.30 for extra do. and low grades of Western. Ohio round hoop extra, $5.75@$5.90. Ohio, St. Louis and Genesee extras range from $5.60 to $7. Canadian Flour, $5.40@$6.75 for common to choice extra. Southern Flour is heavy. Baltimore superfine, $5.40@$5.70; and $5.70@$6 for the better grades. Rye Flour steady at $3.60@$4.40 for fine and superfine. Corn meal lower. Jersey, $3.40. Brandywine, $4.50. Buckwheat flour, $1.62½@$1.75 per 100 lbs.

GRAIN—Wheat more active. White Southern, $1.50@$1.55. do Western, $1.40@$1.50. do Canada, $1.37@$1.42; red Southern, $1.28@$1.29; do Western, $1.30; Milwaukee and Canada club, $1.18@$1.20. Chicago spring, $1.19. Rye firm at 85c@87c. Barley 78c@85c. Corn. 73c for all grades of new white and yellow. Oats firm at 40c@41c for Jersey, Delaware, and Pennsylvania; 45c@46c for State, Western, and Canadian. Canadian Peas, 70c@80c. White Beans, $1.10@1.15.

SEEDS—Clover, 7¾c@8¾c per lb. Timothy scarce and nominal. Flax, $1.50@$1.58 for rough American. Red top, $2.50@$2.62½ per five bushel bag.

PROVISIONS—Pork steady, but not very active; old Mess, $17.-50; new do, $18 37½; old Prime, $12.50; new do, $14.50. Beef is in fair demand and firmer at $5.25@$5.50 for country mess, and $4@$4.50 for prime do; $9.25@$10 for repacked Western; $10.75@$11.50 for extra mess. Beef hams, $18.75@$15.50. Bacon 10½c. Cut meats steady and in fair demand. Hams, 9c@9½c. Shoulders, 6¼c@6½c. Green meats steady. Dressed Hogs are in demand at 7¼c@8c per lb. Lard is dull at 10½c@10¾c. Butter is plenty—Ohio, 11c@14c; State, 12c@15c for fair to prime; choice, 20c@22c. Cheese in fair demand at 9c@11¾c per lb. Potatoes—Mercers, best, $1.75@$2.00; Peachblows, $1@$1.88; Dyckmans, $1.88@$1.50; Junes, Round Pinkeyes, Western Reds, and Jackson Whites, $1.25@$1.38 per bbl. Nova Scotia, 50c per bushel.

CATTLE MARKET—Beef cattle more active. First quality, 10c@10¼c; medium, 8c; ordinary. 7c@8c; extra good, 10¾c@11¾c per lb. Veal calves 7c@8c per lb. live weight. Sheep and Lambs, $3.50@$5.75 per head, Corn fed Hogs, 6¼c@6¾c; still fed 6c@6¼c per lb. gross.

PHILADELPHIA MARKET.—Feb. 19.

FLOUR AND MEAL—Market quiet. The demand is chiefly from local trade, there being but little inquiry for shipment. Superfine, $5.75; extra and fancy, $5.75@$7, as to quality. Rye Flour dull at $4.25. Corn Meal, quiet at $3 75.

GRAIN—Wheat quiet with little offering. White, $1.45@$1.50; red, $1.35@$1.38. Rye steady at 92c@93c for Pennsylvania. Corn firm at 76c@77c for new yellow. Oats dull at 44c@45c for Pennsylvania. Barley malt, 90c@95c; Barley, 85c.

SEEDS—Clover, $5.25@$5.50, with but little prime offering, Timothy and Flax steady and without change.

PROVISIONS—Mess Pork, $18@$18.25. Mess Beef, $14@$15 per bbl. Bacon inactive. Hams, 11¾c@12¾c. Sides 10c; Shoulders, 8c; Green Hams, 10c@10¾c; Sides, 9c; Shoulders, 7c. Lard, 10¾c@11¾c for bbls., and 11¾c@12c for kegs. Butter dull at 14c @16c for roll, and 10c@12c for packed. Cheese unchanged. Eggs unsettled at 17c@23c per doz.

FRUIT—Market quiet with no change to notice.

WOOL—Market very inactive. Pulled, 35c@40c. Fleece, 40c @55c. Smyrna, 14c@17c per lb.

BUFFALO MARKET.—Feb. 17.

FLOUR—Market dull with but few transactions, except for retail. State extra, $4.90@$5; extra Canadian, $4 8 @$5.10; Ohio extra, $5.50; Indiana and Onio double extra, $5.75@$6.25.

GRAIN—Wheat market very quiet; scarcely any sales. Canada Club, $1.02. Corn 61c@64c. Rye, 75c@80c. Barley, 68c@70c. Oats, 35c. Peas, 64c, but inactive.

SEEDS—Clover active at $4.75@$5. Timothy, $3@$3.25. Flax, $1.85.

PROVISIONS—Prime Mess Pork, $17. Dressed Hogs, $6 75@$7.12 per 100 lbs Lard, 10¾c. Hams, 10c for plain, and 11c for sugar cured. Shoulders, 7½c. Beef hams, 9½c. Butter,16@18c per lb. for State dairy.

CHICAGO MARKET.—Feb. 14.

FLOUR—Market inactive. White winter extra, $5.61; spring extra, $4.70@$4.87½ for favorite brands.

GRAIN—Wheat quiet but firm. We quote red winter, $1.10; No. 2 spring, 96c@$1; No. 1 do., $1 01@$1.02; Iowa club, $1.03@$1.05. Corn, declined—quoted at 39@43c. according to quality. Barley60c. Rye dull at 78c. Oats firm at 33c@36c.

SEEDS—Timothy, $2.25@$2.80. Clover, dull at $4.62½. Hungarian grass in good demand at $1.

PROVISIONS—Mess Pork quiet at $15.50@$17.25. Bulk meats active at 8¼c for green sides; 6½c for packed shoulders; 8¼c per lb. for green hams. Dressed Hogs $6.12@$6.85. Lard, 10¼c. Butter plenty at 11c@14c for fresh, and 10c for firkin. Cheese unchanged. Eggs 16c@17c per dozen. Potatoes40c@45c per bushel for Neshannocks and Pinkeyes.

FRUIT—Green Apples, $2.5 @$3 50 per barrel. Dried Peaches, 11¾c@12c for unpared, and 16c@18c for pared. Dried Apples 7¾c per lb.

CATTLE—Beef Cattle, $2.25@$3.75. Live Hogs, $3.50@$5.90 per cwt, gross.

HIDES—Green, 7c; green salted, 7¾c; dry salted, 10c@12c; dry flint, 13¾@14c. Pelts, 90c@$1.20. Tallow, 10c per lb.

HAY—Prairie, $8 loose; Timothy baled, $12 per ton.

WOOL—Nothing doing.

CINCINNATI MARKET.—Feb. 15.

FLOUR—Heavy; superfine, $5.60@$5.70; extra, $5.75@$5.90.

GRAIN—White Wheat $1.30@$1.33; red, $1.25@$1.28. Corn shelled rather lower, closing at 53c@54c. Rye dull at 96c. Barley unchanged at 58 @63c for spring, and 65c@68c for fall. Oats firm, but lower, at 47c@48c.

PROVISIONS—Mess Pork firm. Holders ask $17.75. Prime city $14@$14.50. Bulk meats held at 6¾c@8¾c Green hams, 9c. Bacon 7¾c@9c. Lard rather higher, and held generally at 10¾c. Butter dullaud lower. Central Ohio, 11c@14c; Western Reserve, 14c@15c. Cheese active and a shade higher, at 9¾c for Western Reserve, and 11c for imitation English dairy. Eggs, large supply at 11@12c per dozen. Green Apples in moderate demand at $2.50@3.50 from store. Potatoes in fair demand at $2 for prime, per barrel.

FRUIT—Dried Apples dull at 6¾c@7c. Dried Peaches scarce at 12@14c per lb. Cranberries $13@$15 per barrel.

CATTLE AND HOGS—Beef Cattle in fair demand, prices varying from $2.50 to $3.75 per 100 lbs. gross. Sheep, $2.50@$5.00 per head. Hogs scarce and in demand at $5.75@$6.00 per 100 lbs. gross.

HIDES—Active. Flint, 13c@14c; dry salted, 12¾c@13c; green salted, 7c@7¾c per lb. Sheep pelts, 75c@$1.00each. Tallow, 10c@10¾c per lb.

HAY—Active, and prices firm at lower rates. Prime pressed Timothy, $18.00@$19,00 per ton.

TORONTO MARKET.—Feb. 16.

FLOUR—Quiet, at $4.40 for Superfine; $4.80 for fancy, and $5.20@$5.30 for extra.

GRAIN—Wheat buoyant at $1.22@$1.27 for fall; 93@97c for spring. Barley nominal at 65c@68c. Rye at quiet 70c@75c. Oats scarce at 35@37c. Peas in request at 55@57½c per bushel.

PROVISIONS—Pork in demand at $6.12½@6.50 per 100 lbs. Fresh Butter, 18c@20c; tub dull at 13@15c per lb. Cheese, 10@12c per lb for American. Eggs, 10c per dozen. Potatoes plenty at 30c@35c per bushel.

SEEDS—The trade is just commencing. Timothy is scarce, the late spring frosts having destroyed much of the seed, rendering importation necessary to supply the deficiency. Rates are yet unsettled, but lots are held at $2 50@$3 per bushel. Clover seed—Fair supply at $5.75@6.25 per bushel.

HAY—In active demand, for consumption and for speculation, and the range is from $16 to $22 per ton. Straw,$8@$9 per ton.

LIVERPOOL MARKET—Jan. 27.

FLOUR AND MEAL—Western canal Flour. $5.04@$5.28 for old, and $5.76@$6.24 for new; Philadelphia, Baltimore, and Ohio, $5.76@$6.48; Canadian, $6.00@$6.48; extra qualities, $6.24@$6.72; sour, $4.80@$5.52. Corn Meal. $4.56@$4.80.

GRAIN—American white wheat, $1.51@$1.62; red do, $1.37@$1.51; Canadian white, $1.44@$1.58; do. red, $1.33@$1.40. Indian corn—white, $1.08@$1.14; yellow, 93c@96c; mixed, 91¾c@93c. All per bush. of 60 lbs.

SEEDS—Clover—New red North American, 11c per lb.

WOOL—Domestic fleece, 11c@33c. Colonial, 14c@72c; German, Saxon, and Prussian, 40c@$1.06 per lb.

LONDON MARKET.—Jan 30.

FLOUR—American sour. $5.28@$6; sweet, $5.76@$6.48.

GRAIN—Wheat—American white, $1.29@$1.47; do red, $1.26@$1.41. Indian corn—white, 98c@$1.02; yellow, 90c@96c, per 60 lbs.

SEEDS—Clover—Red, 10@11¾c; white, 17¾@19¼c per lb.

WOOL—Domestic fleece, 35c@40c; sorts, 30c@48c per lb.

BRIGHTON CATTLE MARKET.—Feb. 16.

At market, 1200 Beeves, 90 Stores, 2000 Sheep and Lambs, 90 Swine.

PRICES—Market Beef—Extra, $8.00@$0.00; First quality, $7.00@7.50; Second. $6.75; Third. $6@$0.00. Working Oxen—$85@$10 0. Milch Cows—$34@$59; Common, $17@$18. Veal Calves—$3.00@$5.00. Yearlings—None. Two Years old—$17@$22. Three Years old—$24@$28. Hides—6c@6¼c per lb. Calf Skins—10c@11c per lb. Tallow—7@7¾c. Sheep and Lambs—$2.5 @$3.00; extra, $4.0 @$7.00 Pelts—$1.25@$1.75. Swine—Fat Hogs, none. Pigs, 5½@6¾c; retail, 6c@7½c.

REMARKS.—Prices of Beef cattle remain about the same as last week; but little extra beef in market. Market more active than last week. Sheep have advanced 25@50c per head. Swine sell the same.

Beeves are sold here by the head, at prices per lb. equal to the estimated weight of beef in the quarter, together with the fifth quarter, or the hide and tallow, at the same price, at a shrinkage from live weight agreed on by the parties—from28 to 34 per cent.

ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the *Genesee Farmer* for twenty-five cents a line, or $2.50 per square, each insertion, payable in advance. To secure insertion, they should be sent in by the 15th of the previous month. The *Farmer* has large lists of subscribers in *every State and Territory, and in all the British Provinces.* (It has nearly 5000 subscribers in Canada West alone.) There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada.

The Rural Annual AND HORTICULTURAL DIRECTORY, FOR 1860.

THE FIFTH VOLUME of THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY is now published. It contains *One Hundred and Seven Illustrations.* It is unquestionably the handsomest work of the kind yet published in this country. It contains ONE HUNDRED AND TWENTY PAGES, abounding in useful and interesting information.

NO FARMER OR FRUIT GROWER SHOULD BE WITHOUT A COPY.

Among the Contents will be found Articles

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The Illustrations have been obtained at great expense, and are superior to anything of the kind yet published in this country.

Let every one interested in the Culture of the Soil, or in the improvement of Rural Taste, send for a copy.

ONLY TWENTY-FIVE CENTS!

Sent pre-paid, by mail, to any address, on the receipt of the money in three cent postage stamps.

Address **JOSEPH HARRIS,** ROCHESTER, N. Y.
Publisher of the *Genesee Farmer.*

☞ The bound volumes for 1856, 1857, 1858, and 1859, can be had at 25 cents each, postage paid.

FROM $75 TO $150 PER MONTH—Made by any active person with *Improved* $10 Stencil Tools. Indellible Ink and all kinds of Stencil Stock cheaper than elsewhere. For samples and circular containing full particulars, send a stamp to
March, 1860.—2t D. L. MILLIKEN, Brandon, Vt.

NEW AND CHOICE VEGETABLE AND FLOWER SEEDS
By Mail.

A CHOICE selection of Vegetable and Flower Seeds, from our experimental gardening the past year, are now offered to the public. Our seeds have been selected with great care, and the fruit thereof has been tested by us, and known to be valuable. Among our vegetable seeds we have the Japan Apple Pie Melon; Perfect Tomato; Winter Cherry, (Physalis viscosa); West India Pea; Jenny Lind and Pine Apple Canteloupes; Cal. Mammoth Parsley; Cal. Prolific Bean, (very choice); Purple Egg Plant; Man of Kent, (long green), and White Spired Cucumbers; Strawberry Watermelon; Honolulu, Hubbard, and Blue Apple Pie Squash; Constantinople Sweet Corn, (very choice); Sweet Marjoram; Cuba and Graham Tobacco; *Mammoth Mustard*; Sweet Russian and Dew-Drop Turnip, &c., &c. Six packages of the different varieties, 50 cts; 12 packages, 75 cts, or 18 packages for $1. Please make a selection. Our selection of Flower Seeds are from many varieties of our own cultivation—those that are *really desirable*; of easy culture, and of the most brilliant display. In our collection we have 12 packets; and to save useless expense, we have mixed all the best varieties of each family in one packet. The 12 packets will embrace new and popular varieties, including Truffants, Finest Pæonia Flowered Astors—12 distinct colors; Prussian Scabious—eight large flowered varieties of this beautiful border flower; Convolvulus Minor—six varieties of this beautiful gem; Coreopsis—brilliant and effective—ten varieties; Morning Glory, (Ipomea),—From Prussia, striped and varied colors of the most vivid hues, &c., &c. The 12 packets sent by mail, post-paid, for 50 cents in stamps; or the 12 packets of flower seeds, and six packages of the vegetable seeds for $1. Sums less than $1 can be remitted in stamps.

Address LEMUEL NORRIS,
March, 1860.—* Windsor, Ashtabula Co., Ohio.

MARBLEHEAD DRUMHEAD CABBAGE.

THIS Cabbage is by far the most popular kind sold in Boston markets. It originated in Marblehead, Mass., and holds the same rank among cabbages as the Hubbard Squash among squashes. It is distinguished for its *reliability for heading*—setting a symmetrical head, remarkably hard and heavy. It is early, very fine grained and sweet, with a stump, when properly cultivated, of but from one to two inches in length. Under good culture, frequently every plant on an acre will set a marketable head.

A package of seed of the best variety of this cabbage—the Stone Mason—containing seed more than sufficient to raise a winter supply for one family, will be forwarded, postpaid, on the receipt of 25 cents; or one pound of seed, postpaid, for $4.00—or for $3.00 to parties paying their own freight.

If this Cabbage does not prove to be what I recommend it, the money will be returned; and I hereby offer $5.00 *for one ounce of seed of any variety of Drumhead Cabbage that, in the above characteristics, shall prove superior to this.*

Any person desiring a package of seed of the Marblehead Mammoth Drumhead, can obtain it at the same price. This is the largest cabbage in the world, averaging, as grown by Marblehead farmers, thirty pounds a head by the acre, and sometimes reaching sixty pounds a plant, and measuring nearly six feet around the solid head. JAMES J. H. GREGORY,
March, 1860.—1t Marblehead, Mass.

W. T. & E. SMITH,
GENEVA NURSERY, GENEVA, N. Y.

OFFER for sale a large stock of the following Trees and Plants:

Standard and Dwarf Cherry, Standard and Dwarf Pear, Peach trees of fine growth, Grape vines of the New Sorts of Delaware, Diana, Concord, Rebecca, and old sorts of Isabella, Catawba, and Clinton; large stock of the true Oporto Grape, the best for making wine, perfectly hardy for out-door culture; Lawton Blackberry plants, Wilson's Albany Strawberry, Doolittle Raspberry, and American Black Raspberry, a great bearer, hardy and valuable; and other valuable sorts at reduced prices. Norway Spruce, from 3½ to 6 feet high; Mahonee Aquafolie Roses of Hybrid Perpetual, or ever blooming, 150 varieties at low prices.

☞ A general assortment of Fruit and Ornamental trees always on hand.

SEEDLINGS, &c.

Pear Seedlings, just imported in good order, now pruned ready for planting, at $12.00 per 1,000. Apple, Cherry and Plum Seedlings; one year old Hedge Plants, of the Honey Locust variety. This is undoubtedly the best hedge plant in cultivation. For a farm hedge, or as shelter and protection for orchards, it is unsurpassed, being perfectly hardy, with a rapid growth, and when kept sheared makes a strong, handsome and durable hedge fence. Only $6.00 per 1,000, and will grow on all soils. Plant six inches apart. March, 1860.—1t

GRAPES.

SEND a stamp and get an Illustrated and Descriptive Catalogue of over 70 sorts of Hardy native Grape Vines.

BISSELL & SALTER send vines by mail, and also by express or freight train. C. P. BISSEL & SALTER, Rochester, N. Y.

HUBBARD SQUASH SEED.

HAVING given the Hubbard Squash its name, and having been the first to introduce it to public notice, I offer the purest seed raised, at 12½ cents for a package of 50 seeds, postpaid; or $2.25 for one pound, postpaid to any part of the United States, excepting California and Oregon, to which one dollar extra will be charged.

☞ Seed dealers supplied at a discount.

The Hubbard Squash is recommended by Hon. Marshall P Wilder, Hon. Edward Everett, and the entire Agricultural Press of New England, as the sweetest, dryest and richest flavored of all winter squashes. Last Fall it readily brought in the Boston markets $30 per ton, while the best Boston Marrow sold with difficulty at $15.

The Hubbard Squash has succeeded admirably in New England, the West, in California, New York, and other states.

JAMES J. H. GREGORY,
March, 1860.—4t Marblehead, Mass.

SAMUEL MOULSON,
AT THE OLD ROCHESTER NURSERIES,
ROCHESTER, N. Y.

HAVING an extra stock of the undermentioned items, offers them at greatly reduced prices:

WHITE EUROPEAN BIRCH,	10 to 12 feet high,	....	$14	00 per 100
MAGNOLIA TRIPETERA,	8 to 4 "	....	25	00 "
WEEPING MOUNTAIN ASH,	9 to 8 "	....	1	00 per doz.
SNOW BALLS,	2 "	....	80	00 per 1000
Do.	4 to 5 "	....	18	00 per 100
NORWAY SPRUCE,	5 to 6 "	....	25	00 "
RED CEDARS,	1 to 2 "	....	60	00 per 1000

Together with a full assortment of items, both in the Fruit and Ornamental Departments.

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Agricultural Booksellers and Publishers of The Horticulturist, No. 25 Park-row, New York,

Catalogues gratis. Books sent by mail.

☞ AGENTS WANTED. March, 1860—4t

STOCKS FOR NURSERYMEN.

150,000 PRIME Pear, Mahaleb and Quince Stocks, at the lowest rates. Also, Norway Spruce, 6 inches to 2 feet high; American White Spruce, White Pine, Russian Pine, Scotch Fir, &c. Grapes, Gooseberries, Currants, Raspberries, Strawberries, Pie Plant, &c., at prices to suit the times.

☞ New Wholesale Catalogues free. Address.
March, 1860,—1t E. Y. TEAS, Richmond, Indiana.

SAELTZER & VALK, ARCHITECTS,
Bible House, Astor Place, New York City.

THE success of the New American Style for Cottages and Villas is shown by its being adopted by all gentlemen who have seen our samples. No other style is so beautiful or economical as this. For terms in making out drawings &c., enclose a stamp and send for a circular, containing another example. It

HAMILTON NURSERIES, C. W.

THE subscriber, having occasion to remove the following trees in Spring, offers them to the trade *very low*:

About 10,000 Fine Plum Trees, 4 to 7 feet high.
6,000 " " " 1 year—20 to 40 inches.

They are of the best leading varieties and grafted on the hardy Canada Plum Stock. W. HOLTON.
Hamilton, March, 1860.—1t*

The Farmer and Gardener,

A FIRST-CLASS Agricultural and Horticultural monthly. Terms, ONE DOLLAR per annum, with a postpaid copy of "THE YEAR BOOK OF THE FARM AND GARDEN."

☞ Send for specimen numbers. A. M. SPANGLER,
March, 1860.—1t No. 633 Market street, Philadelphia.

THE YEAR BOOK OF THE FARM AND GARDEN.

A HANDSOMELY printed, elegantly illustrated, and strictly reliable Manual for the Farmer, Fruit and Vegetable Grower. Price, 25 cents, prepaid. A. M. SPANGLER,
March, 1860,—1t No. 633 Market street, Philadelphia.

JAPAN APPLE PIE MELON.—Packets containing *Thirty Seeds*, with directions for use, will be sent by mail, postpaid, to any address in the Union, on receipt of *nine three-cent stamps*.
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ISABELLA AND CATAWBA GRAPE VINES.

MADE FROM FRUIT WOOD ALONE.

OF proper age for forming Vineyards, cultivated from and containing all the good qualities which the most improved cultivation for over twenty years has conferred on the Croton Point Vineyards, are offered to the public. Those who may purchase will receive such instructions for four years, as will enable them to cultivate the Grape with entire success, provided their locality is not too far north.

The past season, though the coolest and most unfavorable for grape maturing we have had in many years, the subscriber ripened his whole crop,—proving that his Isabellas and Catawbas have become perfectly acclimated. This gives him full assurance that, by improved cultivation, pruning, &c., a crop of good fruit can be obtained EVERY YEAR, in most of the Northern, all of the Middle, Western and Southern States.

N. B.—To those who take sufficient to plant six acres, as he directs, he will, when they commence bearing, furnish the owner with one of his Vinedressers, whom he has instructed in his mode of cultivation, and he will do all the labor of the Vineyard, and insure the most perfect success. The only charge, a reasonable compensation for the labor. When the purchase is large, and approved paper or other security can be offered, a liberal credit on most of the purchase will be given.

Also, APPLE-QUINCE TREES, (which are sometimes called the Orange Quince,) for sale as above.

Also, for sale at his PURE WINE AND GRAPE DEPOT, (No 7 Clinton Hall, Astor Place, N. Y. City), Isabella and Catawba Wine in their Purity.

All communications addressed to R. T. UNDERHILL, M. D., New York, or Croton Point, Westchester Co., N. Y., will receive attention. March, 1860.—2t

FIVE SPLENDID STRAWBERRIES.

Hooker—Very productive; large, beautiful, and of UNEQUALLED QUALITY.

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Pyramidal Chilian—Very handsome; productive, hardy, and *good flavor*.

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As it is impossible to secure all the excellencies of this most popular fruit *in one variety*, we offer the above as comprising, in five sorts, the various points desirable.

We again confidently RECOMMEND the HOOKER, as by far the best for family use, if only one sort is to be planted—combining a greater number of excellencies than any other variety.

☞ All of the above have perfect flowers, and will produce excellent crops, if planted singly or together.

PRICES—(Securely packed to be forwarded by express:)

Per	100	plants of any of the above varieties.....$2.00
"	100	" 20 of each variety..... 3.00
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H. E. HOOKER & CO.,
COMMERCIAL NURSERIES,
March, 1860.—1t Rochester, N. Y.

QUEEN'S SEEDSMEN

Peter Lawson & Son,

EDINBURGH, No. 1 GEORGE IV. BRIDGE.
LONDON, No. 27 GT. GEORGE STREET, WESTMINSTER, S. W.

ON account of the numerous applications which have been made to Peter Lawson & Son to send their List of Seeds and Nursery Produce to the United States and Canada, they beg to inform the Trade in America, that they are prepared to furnish them with

PRICE LISTS,

and to assure them that any orders they may be favored with will receive their best attention.

☞ All orders must be accompanied by CASH, or satisfactory references in England. March, 1860.—1t*

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pictorial weekly, for the family, the merchant, mechanic, artisan, farmer, planter, manufacturer, builder, fruit-grower, etc. $2 a year.
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Extract from the Catalogue of Messrs. E. G. Henderson & Son the Queen's Nurserymen, London, 1859.

The Lawton Blackberry,

(THE NEW AMERICAN FRUIT.)

"Numerous testimonials of public bodies and professional growers, have been produced in favor of its being a distinct and good habited plant, without a single defect in its growth or bearing—the fruit of delicious flavor, admirably adapted either for a dessert fruit, for market produce, or for family consumption in home-made wine. The fruit is produced in large terminal racemes; the individual aggregate berries are large, like to small conglomerated miniature clusters of black grapes, and with seeds proportionately small to each berry."

Thus in all parts of the world is this fruit becoming favorably known, and a volume of testimonials could be given equally favorable. The original variety, free from admixture of seedlings, or the *Common New Rochelle*, in packages to suit purchasers, for sale by WILLIAM LAWTON,
New Rochelle, N. Y.
☞ Circulars free. March, 1860.—1t

NEW AND RARE FLOWER SEEDS.

	per packet,	cts.
CALLIRHOE PEDATA,	"	25
ACROCLINIUM ROSEUM,	"	10
ALONSOA WARSCEWICSII,	"	10
CLARKIA PULCHELLA VAR INTEGUPETALA,	"	25
NEW AURICULA FLOWERED SWEET WILLIAM,	"	25
DIANTHUS CHINENSIS HEIDEWIGI,	"	50
DIANTHUS CHINENSIS LACINIATUS,	"	50
GUTLIERNEZIA GYMNOS PERMOIDES,	"	10
SPOMŒA TRICOLOR,	"	10

With hundreds of other new varieties, for which see our Flower Seed Catalogue. Also, ASSORTMENT containing
5 BEAUTIFUL VARIETIES PHLOX DRUMMONDII, for.....40 cents.
7 do do PORTULACA, ...55 "
J. M. THORBURN & CO.,
March, 1860—1t 15 John St., New York.
N. B. SPERGULA PILIFERA, 50 cents per packet.

FARMERS READ! FARMERS READ!!

THE best of all modern inventions is "Shares' Coulter Harrow, Pulverizer and Grain Coverer," which was used last season *with grand success* by very many of the best farmers in this country, and pronounced "*Excelsior*"—"*nothing can excel.*"—The price is only $15, and it weighs only 185 lbs. Farmers having "Corn stubble," or "Cabbage stubble," or Fall-plowed s.d, who use this machine, need not use the plow in the Spring. This Coulter Harrow answers for the Plow, Cultivator and Harrow combined, besides saving its value in time. For particulars and Catalogues, address WM. W. EGGLESTON,
Dealer in Seeds and Implements, Albany, N. Y.
March, 1860.—2t

FARM FOR SALE.—Situated within about half a mile of the village of Wallingford, New Haven Co., Conn., and about three-quarters of a mile from the Depot of the New Haven, Hartford and Springfield Railroad. Said farm contains about 120 acres. I will sell the whole, or divide it. it is one of the best farms in the county, and in a high state of cultivation. Buildings nearly new and beautiful location; good orchards of grafted fruit, and spring water brought to house and barns in pipes. For particulars inquire of the subscriber on the premises.
ELIJAH WILLIAMS.
March, 1860.—1t Wallingford, Conn., Feb., 1860.

POTATO OATS AND SEED POTATOES.—This superior variety of oats ripens early, yields largely, and weighs from 38 to 44 lbs. per bushel. Seed, of my own raising, at *one dollar* per bushel. Also—Prince Albert, Jackson White, Jersey Blue, Davis Seedling, and Peach Blow Potatoes for sale at one dollar per bushel and no charge for packages—bags for oats 25 cents each—delivered on cars at Batavia. A liberal discount on orders of 10 bushels or over. P. P. BRADISH.
March, 1860.—1t Batavia, N. Y., Feb., 1860.

BEE KEEPING EXPLAINED.—A practical work of near 400 pages, that *all* can understand, *giving directions on every point of Bee culture*, viz:—making hives, either the common box or movable comb hive; how to make boxes; when to put them on, take them off; how to make artificial swarms; how to *prevent* being destroyed by the moth, loss of queens, diseased brood, &c., &c. *Sent free of postage for one dollar.*
Address 1t M. QUINBY, St. Johnsville, N. Y.

LAWTON BLACKBERRY.—Permanent, hardy, prolific, large size, and of exquisite flavor, in all climates; the original variety carefully preserved from admixture with seedlings, and the common New-Rochelle Blackberry for sale, in small or large packages, by WILLIAM LAWTON,
March, 1860.—3t New-Rochelle, N. Y.

LIFE ILLUSTRATED.—A FIRST-CLASS

weekly pictorial. Only $2 a year; $1 for six months.
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FRUIT AND ORNAMENTAL TREES
FOR THE SPRING OF 1860.

ELLWANGER & BARRY

SOLICIT the attention of Planters, Nurserymen, Dealers, and others, to their large and fine stock of FRUIT AND ORNAMENTAL TREES, SHRUBS and PLANTS, which they offer at wholesale and retail. All who intend to purchase trees this Spring, in large or small quantities, will do well to consult the Catalogues named below. Our new Descriptive Fruit Catalogue is now ready for distribution. In general terms, the stock may be enumerated in part as follows, viz:

STANDARD FRUIT TREES FOR ORCHARDS,

embracing all the most esteemed and valuable sorts for different parts of the country.

Dwarf Trees for Gardens.—All the best varieties adapted to garden culture in this form.

Grapes—Hardy varieties, including

Delaware,	Hartford Prolific,	Emily,
Diana,	Rebecca,	Raabe,
Concord,	Clara,	Brinckle; &c.

Grapes, Foreign, for vineries, including Muscat, Hamburg, Stockwood, Golden Hamburgh, Lady Downs, Buckland's Sweetwater, &c.

Strawberries—All the American and Foreign varieties of proved excellence in this country.

Blackberries—Dorchester and New Rochelle or Lawton; of the latter, a great stock of strong plants.

Gooseberries—The best English sorts, and a great stock of the American Seedling, that bears wonderful crops and is exempt from mildew.

Currants—White Grape (the largest and best white Currant), Victoria, Red Dutch, Black Naples, &c.

ENGLISH FILBERTS and SPANISH CHESTNUTS.

FIGS—Several of the finest sorts.

Rhubarbs—Linnæus, Giant, Victoria, and several new and fine English sorts.

FRUIT TREES FOR ORCHARD HOUSES.

Dwarf Maiden Trees—Of Apple, Pear, Plum, Cherry, Apricot, &c., of the finest sorts for pot culture or orchard houses. Suitable selections made by E. & B. if desired.

ORNAMENTAL DEPARTMENT.

The stock in this department is the largest and best we have ever before offered, and embraces everything desirable, new and old, among

Deciduous Ornamental Trees,	Pæonies,
Evergreen Trees,	Dahlias,
Flowering Shrubs,	Phloxes,
Climbing Shrubs,	Border Plants,
Roses.	

Bulbous Roots—Summer flowering, including Amaryllis; Gladiolus; *Lilies*, Japan, &c.; Tuberose, Tigrida, Tritonia aurea, Colchicum, &c.

Stocks for Nurserymen.

PEAR SEEDLINGS, our own growth, 1 and 2 years.
MAZZARD CHERRY, 1 year.
MAHALEB do. 1 and 2 years.
QUINCE STOCKS, 1 year from cuttings.

For full and detailed information respecting the stock, prices, terms, &c., we refer to the following Catalogues, which will be sent gratis, prepaid, to all who inclose one stamp for each:

No. 1—Descriptive Catalogue of Fruits.
No. 2—Descriptive Catalogue of Ornamental Trees, Shrubs, Roses &c., &c.
No. 3—Descriptive Catalogue of Dahlias, Green-House and Bedding Plants, &c.
No. 4—Wholesale Catalogue for Nurserymen, Dealers, and others who purchase in large quantities.

ELLWANGER & BARRY,
March, 1860.—1t Mount Hope Nurseries, Rochester, N. Y.

THE PERFECTED TOMATO.
POMO D'ORO LESTERIANO.

THIS NEW SPECIES OF TOMATO—which has been brought to perfection by C. EDWARDS LESTER, Esq., after many years of experiment in Italy and the United States—has been pronounced by Agricultural Fairs, Farmers' Clubs, Horticulturists, Chemists and Epicures, to be in all respects superior to any other species. It excels in *size, delicacy of flavor, thinness of skin, fewness of seeds, solidity of meat, prolific bearing, and ease of culture.* It matures quicker, and hangs longer on the vine than any other.

We have a small supply of seed saved by Mr. Lester last season.

Price, per packet, containing 24 seeds, 25 cents.

If ordered by mail, a three cent stamp must be added, for return postage. J. M. THORBURN & CO.
March, 1860—2. 15 John St., New York.

Rare and Beautiful Flowers.
B. K. BLISS, SEEDSMAN AND FLORIST,
Springfield, Massachusetts,

WOULD respectfully inform his friends and patrons that his new Descriptive Catalogue of FLOWER AND VEGETABLE SEEDS is now ready for delivery, and will be mailed to all applicants enclosing a three-cent stamp. Much pains has been taken in preparing it, and it contains, in addition to the information usually found in such lists, many descriptive and cultural notes for the benefit of the amateur and unprofessional florist.

It will embrace all that is new and most desirable among Annuals, Biennials, Perennials, and Green House Seeds, alike suitable for the Flower Garden, Pleasure Grounds, Lawns, Shrubberies, and the Conservatory, as well as many matchless novelties of the highest merit, which have been collected by his European correspondents from the most reliable sources.

Collection of Flower Seeds by Mail, Postpaid.

The following collections have been sent out from his establishment for the past six years, and are now favorably known in every section of the country.

ASSORTMENT No. 1—Contains twenty choice varieties of Annuals —$1.00.

ASSORTMENT No. 2—Contains twenty choice varieties of Biennials and Perennials—$1.00.

ASSORTMENT No. 3—Contains ten extra fine varieties of Annuals and Perennials, embracing many of the newest and choicest in cultivation—$1.00.

ASSORTMENT No. 4—Contains five very choice varieties selected from *Prize Flowers* of English Pansies, German Carnation and Picotee Pinks, Verbenas, Truffant's French Asters, Double Hollyhocks—$1.00.

Any one remitting $3.00 will receive the four assortments, postage free.

The Seeds contained in the above assortments are of his own selection. Purchasers who prefer to make their selection from the Catalogue will be entitled to a discount proportionate to the quantity ordered.

☞ All orders must be accompanied with the Cash, which can be remitted in current bank bills or postage stamps.

Please address B. K. BLISS,
March, 1860.—6t Springfield, Mass.

NEW AND VALUABLE SQUASHES.

SEEDS OF THE HONOLULA,	per packet,	25 cents.
GOLDEN GREEN JAPAN,	"	25 "
WHITE LEGHORN,	"	35 "
MAMMOTH CUBA,	"	25 "
MAMMOTH CHILI,	"	25 "
IMPROVED LIMA MARROW,	"	25 "
SANDWICH ISLAND,	"	25 "
HUBBARD,	per lb., $1.50; per oz.,	20 "
TRUE SEVEN YEAR PUMPKIN,	per packet,	25 "

TREE AND SHRUB SEEDS.

NORWAY SPRUCE,	per packet,	$0 75
EUROPEAN SILVER FIR,	"	1 00
BALSAM FIR,	"	3 00
HEMLOCK SPRUCE, (clean seed)	"	6 00
AMERICAN ARBOR VITÆ, do.,	"	6 00
CHINESE, do do.,	"	3 00
STONE PINE,	"	1 50
BLACK AUSTRIAN PINE,	"	3 00
SCOTCH FIR,	"	1 50
SCOTCH LARCH,	"	3 00
AMERICAN BALD CYPRESS (beautiful),	per quart,	80
STRAWBERRY TREE (*arbutus unedo*),	per oz.,	40
HOP TREE,	per oz.,	25
BUCKTHORN,	per lb.,	1 00

Tree Seed Catalogues on application to
J. M. THORBURN & CO.
March, 1860—1t 15 John St., New York.

BELL CRANBERRY PLANTS.
NEW-ROCHELLE (Lawton) BLACKBERRY.

HOP TREES, all of which are reliable, and at lowest prices.

Circulars relating to culture, soil, price, &c., will be furnished gratis to applicants. Also,

Brinckle's Orange, North River, Red Antwerp, Black Cap, Franconia, and other varieties of RASPBERRIES.

Delaware, Logan, Rebecca, Diana, Concord, Hartford Prolific, Isabella, Catawba, and other varieties of GRAPE VINES, with a full assortment of

TREES, PLANTS, ROSES, VINES, &c.

2,000 Norway Spruce and Arbor Vitæ, 8 to 12 feet high, handsome form—it is said by others to be the finest lot in New England—and at less prices.

F. TROWBRIDGE & CO.
New-Haven, Conn., Feb., 1860.

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March, 1860.—3t Springfield, Mass

Wethersfield Seed Sower.

ATTENTION

SEEDGROWERS, GARDENERS, AGRICULTURISTS,

AND

Dealers in Agricultural Implements!

THE above machine is the invention of T. B. ROGERS, of Wethersfield, Conn.—a place noted as a great seedgrowing town, and where large numbers of root crops are cultivated. It is there extensively used.

It was Awarded the Highest Premium at the Connecticut State and Hartford County Fairs.

COMMENTS OF THE PRESS.

Just the implement which *farmers and market gardeners* have *long needed*. Every kind and size of seed is sown. *Even parsnip seeds, which have baffled every machine hitherto used*, are scattered by Mr. Rogers' implement, with *just as much precision and evenness as any other seed*.—*Homestead.*

The labor in working is just about equal to trundling an empty wheelbarrow.—*Christian Secretary.*

It is equally well adapted to large or small seed, of regular or irregular form. It sows beans with perfect regularity, and can be changed *in an instant* for the sowing of cabbage, mustard, or any other seed. Nothing comes amiss to this implement. It makes the drill in the soil, deposits the seed, covers them, and rolls the surface, all, as it goes along. IT IS PERFECT; and ALL JUDGES, present at the trial, AGREE UPON THIS POINT.—*Hartford Times.*

Its great advantages are, that it lays the seed with perfect regularity, *never crowding* any, *nor leaving blank spaces*, and that *no seed* can by any means *fall from it when it is not in motion*.—*Hartford Courant.*

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It does better work, and faster, than seed drills that sell at double its price.

For particulars, send for a circular. Dealers supplied at the usual discount. Their orders should be forwarded immediately, as the supply may be short this season. No implement dealer should allow any time to pass, without ordering from 12 to 500 according to the largeness of his market. PRICE $8.

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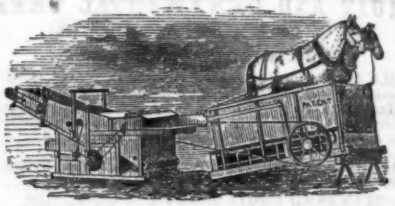
Beautiful French Gladiolus.

WE have just received fifty named varieties of the above species. Price, from 15 cents to $1.50 each.

ALSO,

All the other varieties of GLADIOLUS,
JACOBEAN LILLIES,
TUBEROSES,
TIGER FLOWERS, &c., &c.

For which see our Flower Seed Catalogue.
J. M. THORBURN & CO.,
March, 1860—1t 15 John St., New York.



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Our Endless Chain Powers for One, Two and Three Horses, Lever Powers, Combined Threshers and Winnowers, and Threshers with Vibrating Separators, have met with unequalled success wherever introduced.

We also manufacture a Clover Machine, lately much improved, which can not be surpassed for durability or quality and quantity of its work.

☞ We warrant all our machines to suit purchasers.

For full particulars and Price List, send for our Descriptive Circular, which will be sent to all applicants.

Address G. WESTINGHOUSE & CO.
March, 1860.—3t Agricultural Works, Schenectady, N. Y.

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Feby—2t FOWLER AND WELLS, New York.

Pear Seed! Pear Seed!!

WE have still on hand a small quantity of warranted

PEAR SEED (imported)	$1 50 per lb.
Do do (American)	8 00 "
APRICOT PITS	75 " "
APPLE SEED	7 00 per bu.

J. M. THORBURN & CO.,
March, 1860—1t 15 John St., New York.

PORTEMER FILS, Nurseryman,

GENTILLY, near Paris, FRANCE,

BEGS to announce that he has on hand a large assortment of very fine ROSE TREES, also PEAR and QUINCE STOCKS, for sale at a moderate price. Apply to
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Flower Seeds by Mail.

OUR OWN SELECTION OF

25 varieties for		$1 00
50	" "	2 00
100	" "	4 00

Persons ordering either of the above assortments, may rely upon a beautiful collection. J. M. THORBURN & CO.,
March, 1860—1t 15 John St., New York.

Spring Garden Seeds.

THE most complete assortment ever offered to the public.

ALSO,

KENTUCKY BLUE GRASS,
ORCHARD GRASS,
TIMOTHY. RED TOP.
RHODE ISLAND BENT GRASS,
WHITE AND RED CLOVER.
ENGLISH RYE GRASS,
ITALIAN RYE GRASS,
LUCERNE.

☞ SEED POTATOES.—A choice assortment. For descriptions and prices, send for our catalogues.
J. M. THORBURN & CO.,
March, 1860—1t. 15 John street, New York.

SPALDING'S PREPARED GLUE!

SPALDING'S PREPARED GLUE!

SPALDING'S PREPARED GLUE!

SAVE THE PIECES!

ECONOMY! DISPATCH!

☞ "A Stitch in Time saves Nine." ☜

As accidents will happen, even in well-regulated families, it is very desirable to have some cheap and convenient way for repairing Furniture, Toys, Crockery, &c.

SPALDING'S PREPARED GLUE

meets all such emergencies, and no household can afford to be without it. It is always ready and up to the sticking point. There is no longer any necessity for limping chairs, splintered veneers, headless dolls, and broken cradles. It is just the article for cone, shell, and other ornamental work, so popular with ladies of refinement and taste.

This admirable preparation is used cold, being chemically held in solution, and possessing all the valuable qualities of the best cabinet-makers' Glue. It may be used in the place of ordinary mucilage, being vastly more adhesive.

"USEFUL IN EVERY HOUSE."

N. B.—A Brush accompanies each bottle. *Price*, 25 cents.

Wholesale Depot, No. 30 Platt Street, New York.

Address **HENRY C. SPALDING & CO.,**
Box No. 3,600 New York.

Put up for Dealers in Cases containing four, eight, and twelve dozen—a beautiful Lithograph Show-Card accompanying each package.

☞ A single bottle of SPALDING'S PREPARED GLUE will save ten times its cost annually to every household. ☜

Sold by all prominent Stationers, Druggists, Hardware and Furniture Dealers, Grocers, and Fancy Stores.

Country Merchants should make a note of SPALDING'S PREPARED GLUE, when making up their list. It will stand any climate.

SPALDING'S PREPARED GLUE!

USEFUL IN EVERY HOUSE.

SPALDING'S PREPARED GLUE,
SOLD BY STATIONERS.

SPALDING'S PREPARED GLUE,
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SPALDING'S PREPARED GLUE,
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SPALDING'S PREPARED GLUE,
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SPALDING'S PREPARED GLUE,
SOLD BY COUNTRY MERCHANTS GENERALLY.

Manufactured by **HENRY C. SPALDING & CO.,**
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